Psycho unit 2 - notes

Psychology (Christ (Deemed To Be University))

Scan to open on Studocu

Studocu is not sponsored or endorsed by any college or university
Downloaded by moin khan (moinamb99@gmail.com)

SHOUT
SHARE
IT

UNIT-II

INVESTIGATIVE PSYCHOLOGY

02/08/2019

CRIMINAL PROFILING

It is basically when one tries to construct a sketch of who the criminal might be. Establishing motive is one tiny part of it. It is a very long plus complex process where multiple psychological attributes of the person concerned are sketched plus evaluated. One primary goal is to narrow the area of focus with respect to the suspect. So, therefore, it is basically generating a psychological sketch of the criminal.

ABC of Psychology

A- Attitude
B- Behavior
C- Cognition

And in the context of profiling we add a **'D'** which is **Demographic Features.** So, while creating such sketch of a criminal or anyone, there are 4 important aspects included essentially, which are-

- Affective Attributes
- Behavioral Attributes
- Cognitive Attributes
- Demographic Attributes

So, the potential criminal or the kind pf person who cannot commit a specific crime, profiling done for both cases- where crime is committed or in a situation where there is a potential for a particular crime to occur. E.g. Terrorism (kind of people or psychological sketch of such people who tend to become terrorists). Demographic variables could be anything regarding the background of the person like- age, gender, socio-economic background, nationality, culture, ethnicity, race, etc.

Issue of the reliability of criminal profiling (specifically to what extent is it admissible in a court of law)- There is a very high level of subjectivity when it comes to reliability and validity of criminal profiling within the psychological fraternity as well as the legal fraternity. The specific term used to define profiling has a significant impact on perception of reliability plus validity of it. Criminal profiling is also sometimes called **CRIMINAL INVESTIGATIVE ANALYSIS** and a lot of research is done in evaluating the term criminal profiling vs. what technical or scientific terms and the series of these studies come from research work done by American Forensic psychologist- Torres et al (very recent studies, 21st century, 2006-07), they evaluated and perceived reliability plus validity of criminal profiling vs. criminal investigative analysis. Both of them describe same process and the result showed that the perceived reliability within the psychological community was way higher when 'Criminal Investigative Analysis' was

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

used as compared to 'Criminal Profiling'. So, a certain amount of trust in the effectiveness and efficiency of procedure was way higher when a more technical term was used and these results were also replicated in legal community. Thus, usually the forensic psychologists who engage in criminal profiling strongly believe when scientific term is used, it is more likely to be admissive in a court of law.

What courts have said about admitting evidence based on criminal profiling varies from case to case and the reasons stated are very valid based on the evidence presented. But if we talk about certain background psychological cognitive processes which significantly impact the judgment of the judge/jury with respect to certain evidence then the use of the term to begin with has a significant impact on how it is evaluated by the judge and in turn has an impact on whether it is admitted in court.

If one looks at legal evidence, courts have cited legally valid reasons for either admitting or rejecting evidence based on criminal profiling but studies in psychology shows- even though the use of term in court is not cited as reason for rejecting it but because the term 'criminal investigative analysis' sounds more scientific, technical, therefore more likely to get accepted.

Depending upon the purpose, factors, method, end goal of criminal profiling, there are basically 5 broad categories of criminal profiling. These 5 categories can further be divided into 2.

When the criminal (suspect) is not known-

1. **Crime Scene Profiling**

The next 2 are usually done when suspect is known-

2. **Suspect Based Profiling**
3. **Geographical Profiling**

The next 2 for analysis of criminal and in turn the information is used for future crimes-

4. **Psychological Autopsy**
5. **Psychological Profiling (a psychological assessment of criminal)**

CRIME SCENE PROFILING

Psychological analysis of the elements present at the crime scene, in most cases it is like most other profiling but specifically crime scene plus suspect based plus geographical. Crime scene plus geographical profiling are mostly, usually done in case of serial killers, serial robbers, rapists, murders, thefts, etc.

GEOGRAPHICAL PROFILING

Mostly done in cases of violence, murders (crime against human), most effective in cases of serial rapists, murderers.

Crime scene profiling is basically a process by which the affective, behavioral, cognitive and demographic features of criminal/suspects are denial based on analysis of the crime scene. It is based on the assumption that the manner in which the crime is committed, the elements present

Downloaded by moin khan (moinamb99@gmail.com)

at crime scene are the reflection of the individual who committed it. (His behavior, movements changes he makes, how he does it are reflectors of who he is).

When psychological analysis of elements of crime scene is talked one, the most basic kinds (though it is a very complex process), the most significant features of crime scene analysis is- **analyzing the risk factors which are associated with the kind of Anti-social behavior which the criminal engages in- THE RISK ANALYSIS OR RISK FACTOR ANALYSIS-** An analysis of the risk factors which increase the predisposition of the criminal towards engaging in a particular kind of anti-social behavior, e.g. a violent murder and risk factors which put an individual or predispose an individual to engage in violence and murder. **Risk factors (not watertight but fluid categories) predisposing a person to anti-socialness.**

Risk factors in context with crime scene analysis can be categorized into 2 broad categories-

1. **DYNAMIC RISK FACTORS-** Risk factors which can change overtime which might create anti-social tendencies or predisposing a person towards anti-social behavior. E.g. of such factors- engaging with deviant peers specifically in context of criminal behavior, low, financial status, engaging in substance abuse, environment.
2. **STATIC RISK FACTORS-** Stable, cannot be changed. Might lead to potential criminality in an individual. Factors- childhood experiences, genetic disposition (genes which makes one more aggressive), parenting style (if parents are too violent then child learns to respond in an aggressive way to a potential conflict situation which might result in serial criminality), (if one parent engages in anti-social behavior, the child can also learn it) - high co-relation with possibility of future anti-social behavior in child. Childhood experiences are unchangeable. Parenting does not only refer to parents but if any adult like grand-parents who involve in upbringing of the child would also qualify as Parenting.

Attitudes are relatively stable. Once formed, it is likely to be that way and determine kind of experiences one have. E.g. a person who believes men are superior to woman is likely to befriend a person with same mindset.

Attitude Change/Persuasion-Persuasive techniques are directed towards an attitude to change it.

Dynamic factors can further be divided into 2-

1. **STABLE DYNAMIC FACTORS-** Factors relatively stable persist, do not change quickly or overnight but are changeable and might take a long time to change. Attitudes that fall under stable dynamic factors, example- positive attitude towards women lead to crime against them. These attitudes are changeable but to change them would take a long process and time. Substance abuse- addiction to alcohol is changeable but will take a long time.
2. **EXTREME/ACUTE DYNAMIC FACTORS-** Change rapidly, overnight, few hours, and usually in few days. Crimes committed while intoxication would fall under Acute

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

Dynamic Factors. There is a differentiation because a lot of people might be addicted to alcohol/drugs but it does not mean everyone who is substance abusing will engage in criminal behavior.
Emotional arousing or mood swings- people more susceptible to mood swings specifically important in cases of violent crimes against humans. Most people engage in violent crimes when aggressive, so mood swings becomes important and dynamic factor.

FEATURES PRESENT AT THE CRIME SCENE

2 types of crime scene

1. **Organized Crime Scene-** In an organized crime scene (organized and disorganized crime scenes are not 2 separate categories and a crime scene never completely qualifies to be either an organized or disorganized crime scene. So it is important to look at it from the perspective of a continuum rather than watertight categories) is a crime scene typically where a crime has been symbolic or implicates a crime scene wherein a crime has been pre-planned or pre-mediated. The elements of this are very orderly and also there is a systematic underlined aspect present which shows crime was pre-planned. A lot of times, it is a reflection of instrumental aggression and in cases of psychopaths, aggression is not the goal in itself, it is aimed at satisfying some other need/urge (urge although can be aggressive in nature because it involves hurting others but the gratification he draws is distinct from the aggression.)
2. **Disorganized Crime Scene-** Usually a reflection of emotional aggression. Murders in fit of rage. So expression of aggression is a motive in itself. These crime scenes usually have very little pattern, underlined systematic orientation. These are usually scattered and disturbed.

Downloaded by moin khan (moinamb99@gmail.com)

03/08/2019

Usually in an organized crime scene, victim is selected beforehand whereas in disorganized crime scene, there is a greater likelihood that victim was just picked by chance and was a victim due to the situation.

There is also an active recognition of **Mixed Crime Scene that** has elements of both organized and disorganized crime scene (an almost equal elements of both). In most cases where there are dominant plus elements of both then possibility is that the crime was planned but at the time of execution something unexpected happens and things go out of hands that results in disorganization. Example-

- A serial killer locates the victim, plans crime, at the time of execution, the victim is maybe stronger or a third person might come over, resulting in disorganization.
- A gang of robbers which engages in serial robberies and watches a house and behavior of individuals residing in it and notice that everyone leaves the place by 10:00 a.m. and finds it as a perfect time but when they in process of committing it, they figure out there is an elderly living in house. So this planned robbery could turn into a murder.

Four important concepts from the perspective of psychological analysis and crime scene profiling-

1. **UNDOING-** A process wherein there is an active attempt on the part of criminal to undo the things that happened at crime scene. Undoing is very common in a mixed crime scene. Example- a robber, in a mixed crime scene commits a murder, as a result he will start cleaning blood, move the body, hide it or places it in a position which suggests that the death was due to an accident (portraying murder as suicide). His mentality is to portray that the crime did not happen. If murder is portrayed as it was an accident with a motive that no murder was committed, it will be undoing but it also has an element of staging, where death is portrayed as a suicide.
2. **STAGING-** Adding certain additional elements to crime scene. A crime happened but happened differently is staging. An elusive technique by criminal.
3. **TROPHIES-** Elements from the crime scene which criminals after committing crime take away with them and steal them. They draw a sense of achievement of it.
   Trophies even signatures represent elements wherein the individual has gone beyond what is required to actually commit the crime therefore they offer very valuable information about personality analysis of criminal.
4. **SIGNATURES-** Special aspects which the criminal either engages in or which he leaves behind being symbolic of the crime and simply a signature at crime committed. The criminal leaves it to portray his certain traits and it can portray valuable information about his personality.
   Signatures and trophies depict a more stable pattern of behavior and are reflection of more stable risk factors because they are consistent to a very large extent over a period of time.

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

MODUS OPERANDI OF CRIMINAL- Manner in which the crime is committed. Trophies and signatures form a part of modus operandi of individual which is why they are relatively stable. It is more likely to be in a stable position over a period of time and because of this the manner of commission of crime offer valuable information of criminal. Modus operandi can change over a time period like a *psychopath while committing crime gains certain experiences* might get him more skilled which might result in modifying means operandi, and can also change due to certain *physical changes in body,* like, if a serial killer ages, his physical activity lowers which might alter his modus operandi. In cases of psychopathy, *changes in psychological make up of individual* like psychological state of a person deteriorates over also tend to change. Example- Ted Bundy got skilled while he committing crimes, gained experiences which had an impact on his psychological makeup resulting in more emotionally aggressive crime and more planned crimes.

2nd Type of profiling: SUSPECT BASED PROFILING

In criminal based profiling- Analyzing elements of crime scene in order to get an understanding of the traits of criminal. In contrast, in suspect based profiling, we analyze traits, characteristics of already known criminals in order to determine who is likely to commit a crime. There are 4 important elements from the perspective of getting an understanding of the- affective traits, behavioral traits, cognitive abilities and demographic features of the individuals. These features of known criminals are analyzed to get an understanding of who is likely to commit a crime. This is very frequently done in cases of terrorism, drug trafficking. People having history of active involvement in terrorism forms a basis of behavioral traits that can be analyzed in other individuals.

Suspect based profiling is very prevalent, specifically in US. It is though a subject of criticism mainly due to most suspect profiling is appearance based. As so much information and factors are potentially available, so the most convenient factor that one can rely on is the appearance. **Appearance Based Profiling-** Profiling done on the basis of what a potential criminal/suspect may look like. It uses pre-dominantly demographic elements and descriptors of the appearance of the individual. Aspects like- age, gender, nationality, ethnicity, religion, manner of dressing etc., all of these aspects are useful but to certain extent but using purely appearance based profiling is also extremely problematic because like in case of terrorism- individuals who are dressed in a certain way or individuals who belong to certain nationalities and certain religion are more likely to be searched extensively, also strip searched at an airport. Appearance based profiling when done on the basis of race, ethnicity then also called **Racial Profiling.** Cases of racial profiling kind of peaked in the US after the attack on the World Trade Center. So individuals who were Sikhs were more likely to be harassed on the airport because the appearance fit Osama bin Laden.

Also after this attack there was a phrase in the US that was doing rounds ‘Driving while black’. Originally the phrase being- ‘Driving while intoxicated’ but critics substituted intoxicated with black because in a lot of cases individuals who were of Hispanic origin or who were black were more likely to be stopped by the police personnel on some very basic minimal traffic violation and were likely to be extensively searched because it was anticipated that they were transporting

Downloaded by moin khan (moinamb99@gmail.com)

weapons (terrorism) or drug trafficking. In the US the typical description of someone who is likely to be trafficking drugs is that of an individual belonging to a middle class, usually and adolescent/teenager or and individual in young adulthood and an individual who is black.

Lehman Brothers Collapse- A huge financial banking firm in the US and that led to the global meltdown and led to the collapse of not just the US economy but also a global collapse. The shares crashed tremendously and this essentially was a time of global financial crisis. Later analysis showed that essentially it was the financial crisis leading to unemployment which resulted in immigration from Mexico to US and at the same time there was rise in drug trafficking because a lot of Americans lost their jobs. Rising immigration and drug trafficking and are both correlated and basis that the law enforcement agencies are assuming that due to immigration the drug trafficking levels has increased. They are attributing a causal relationship between the two. But is not true. It is the unemployment which has led to increased immigration and it is the increase in unemployment which is also resulted in more and more people dealing in drugs because they had nothing to do. This essentially is the problem with Appearance/Racial based profiling.

Lastly, Suspect based profiling that has to do with terrorism and to do with screening people for security at the airport. So, individuals belonging to a particular nationality, religion and dressed in a particular way are more likely to be taken aside for intensive checking. This principal is usually followed at the airports (appearance based profiling). People who are traditionally dressed (Asians in general)- Indian women wearing saree, jewelry and men in kurta pajama are way more likely to be intensively to be taken aside for a pat down and not only in the US but also in European countries and Australia. Appearance based checking and pat down is extremely common in airports in order to test for terrorism but a lot of research tells that it is not a very effective way for screening for terrorism.

About 20 years ago there was a particular kind of behavioral screening in place called Computer Assisted Passenger Pre Screening techniques and abbreviated as CAPS. In US there is active recognition that appearance based profiling is not very effective as far as terrorism is concerned and what they started testing is a more behavioral based profiling – CAPS. Now being implemented and extensively used in the US. They are based on certain information which is generated from the passenger before the passenger actually arrives at the airport and boards the flight. Information related to very basic behavior of the passenger. Research tells that (info related to basically how many tickets are booked by the passenger, whether cards or cash used while booking the tickets) individuals who book single ticket, who book ticket for only forward journey and no return journey, passengers who use cash for booking (in US the use of card is more common sousing cash becomes a differentiating factor), passengers using cards and booking tickets of multiple people with different second names (not family tickets)- these individuals are more likely to engage in acts of terrorism.

Although these systems are fairly high in effectiveness but they have low efficiency and that is the basis for a lot of criticism. Effectiveness means when we are using such technological or behavioral based mechanisms then the probability of actually locating a potential terrorist is way more. So the effectiveness is more than the simple appearance based profiling. Nonetheless the

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

efficiency is less which means that a lot of individuals would be taken aside for a pat down and most of these would be innocent people and a very small fraction would actually qualify to be potential suspects. But in the end suspect based or behavioral based profiling is a very effective way for screening potential terrorist.

Downloaded by moin khan (moinamb99@gmail.com)

07/08/2019

3. Geographical Profiling/ Geographical Mapping- It is useful when there are certain territorial or spatial aspects which are evidently associated with a particular crime scene. So when there are specific geographical areas where crimes are more likely to occur then essentially geographical profiling is carried out. There are distinct geographical and spatial patterns to the crime it is in that context when geographical profiling is carried out. There are 2 separate ways in which geographical location based analysis can be done.

- **Geographical Profiling-** The kind and analysis of the spatial movement which is associated with one particular criminal, usually the spatial movement of a serial killer. Because only if an individual is a serial killer that the person will engage in multiple serial killing activities and it is only then where the spatial movement of the person becomes important or relevant to the law enforcement department of the particular area.
- **Geographical Mapping-** Analyzing the spatial pattern of occurrence of a crime in a particularly larger area. And these crimes can be associated with multiple offenders over a period of time. Maps highlighting locations where crimes are more likely to occur, areas sensitive to criminal activity. These documents maintained by law enforcement agencies to keep record of areas more sensitive to criminal activities.

Kim Rossmo, an American forensic psychologist has done a lot of research in the area. Most of the research in the area got triggered towards the end of the previous century. And this included Rossmo's work too (Late 1990s). He used a particular computer based technique to analyze and interpret the geographical movement of a serial killer and called this technique- *Criminal Graphic Targeting.* And this technique got implemented in the US in 1995. The basic purpose of this technique was to be able to locate the base of the serial killer or the specific space from where the serial killer is actually functioning and it was nothing but plotting of topographical maps associated with the criminal activity of the serial killer. The topographical map of the area are a detailed one and these maps were the probability of commission of crimes in a particular area by the particular serial killer and was plotted on the map and this plotting was based on previous behavior and movement patterns of the serial killer and along with this any anticipated movement patterns. The future likelihood or future locations where a serial killer was likely to strike was based on a lot of 'known information' and a lot of assumed probabilities.

Known Information-Where has the crime previously been committed and on the basis of that an inference drawn with respect to what are the comfort zones of the serial killer. The technique was used to figure out both from where the serial killer was based and also to predict what would be his next place of target. Information based on geographical mapping was also then utilized as part of these topographical maps in order to get an understanding of which are these sensitive and high risk areas of that location which essentially offer conditions congenial to commission of that kind of a crime.

Rossmo also gave a typology based on the hunting patterns of the serial killer. He said that when specific spatial locations are involved and there is a specific movement pattern to serial killer, then this individual can be classified into one of the 4 categories. So a very distinct pattern is

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

seen in cases of psychopaths and serial killers and depending upon this spatial movement, if there is a pattern and depending upon this spatial movement if there is a pattern then the spatial movement can be categorized under one of the 4 categories.

1. **HUNTERS-** Are individuals who roam about their base and thus depending upon where there base is. They roam and step out specifically from their base looking for a victim and have a clear idea about who the victim is. They Have certain features in mind and thus roam to across an individual who fits the description which they have in the mind. They follow this target for a long period of time, plan out for how they would attack them and gradually execute their crime. They definitely have an image of the victim in mind.

2. **POACHERS –** Also, a similar category, the only difference being that the poachers were more transient as far as their spatial movement is concerned whereas hunters were more likely to roam about their base and their territory was usually smaller and attacked people who were closer to their base. Poachers are likely to travel longer distances and maybe spend a little more time at a place away from their base and then locate the victim and attack him. Other than the spread of the spatial location the pattern was exactly the same between the hunters and the poachers. High level of planning and control that was depicted in these crimes.

3. **TROLLERS-** These are very different from the hunters and the poachers in the sense that they do not set out with the intent of searching the victim. They do not actively go out on a hunt for the victim but as part of their everyday activities, they come across certain people who trigger some aggressive tendencies in them and because of this triggering, they end up committing the crime. The trigger happens at the moment but in case of hunters and poachers the trigger is a constant phenomenon.

-

Downloaded by moin khan (moinamb99@gmail.com)

08/08/2019

4. **TRAPPES-** A category in which the individual/criminal (very common in cases of psychopathy) where they create certain situations in order to lure the victim or to attract them to their base instead of actively going out in search of victim or just randomly coming across the victim. The situations herein are created to attract to the base of the operation. (Movie- Hostel typical example of trappers) There is an elaborate base that is set up with all the equipment so as to execute the crime after luring. To trap, like there can be fake advertisements in the newspapers maybe an ad for an interview which is not authentic-just to trap the people who would attend the interview.

The first 3 kinds of criminal profiling which is where the suspects are unknown to us. In the other 2 kinds (psychological autopsy and psychological profiling), the criminal is known to us and that he is the one who has committed the crime and an analysis is conducted on the person simply to understand the psyche of the person concerned. In case where the person is alive and is readily available for conducting the analysis then in that case the psychological profiling is conducted but when the person is dead then in such a case, psychological autopsy is conducted.

PSYCHOLOGICAL AUTOPSY- This is 3 folds and Is frequently called as 'Reconstructive Death Analysis' or 'Reconstructive Psychological Analysis' which is also frequently known as 'Equivocal Death Analysis'. It is basically a procedure which is conducted to figure out the manner of death of the person. The focal point being the person who is dead and it is performed with the perspective of understanding what led to the death of the person or what was the manner of the death of the person. In this case the person/object of analysis is known and by way of understanding what led to the death of the person, the end goal is to differentiate between if there are people involved in the death of the person, then who these people are.

Manner of Death- the term 'Equivocal Death Analysis' coined by **Edmin Shneidman**, in the context of the large number of cases of death that were coming up which were unexplained and unambiguous. And it is this when the services of Shneidman were utilized who then acted as a forensic psychologist. The procedure used by him- 'Equivocal Death Analysis' (equivocal'- unambiguous, something unclear). So the death being unambiguous and thus the procedure named so. With other various strategies also being used, there is a broader term used now, which is, psychological autopsy. Also explained the Manner of Death to imply something.

Shneidman stated 5 manners of death of a person-

1. Accidental
2. Natural (illness-cancer, heart attack, etc.)
3. If neither of the above two then someone is involved in killing the person, and if himself then Suicidal.
4. Homicidal- when someone else is involved in killing the person.
5. Undetermined Death, the cause is unknown.

Initially the idea of psychological autopsy or specifically equivocal death analysis was used and introduced in the area of undetermined deaths where the manner of death remained unknown.

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

Today it is most commonly used in area of Suicides, specifically used to determine the series of events that led to the commission of suicide in the individual. In this context there are 2 specific terms that are used-

- 'Suicide Psychological Autopsy'- The term used if used in cases of suicide.
- 'Equivocal Death Psychological Autopsy'- The term used if used in the area of undetermined death.

Shneidman very actively differentiated between the 'manner of death, and the 'cause of death'.

For instance, a person goes on hills for a vacation, falls off from the edge of the hill and ends up dying. The cause of death in this case would be- Falling off from the death. The manner of death could be accidental (if slips), could be a suicide (if himself jumps off), could be homicidal (if accompanied by few friends and they push him), could be natural (if had a weak heart and reaching the edge of the cliff gets a heart stroke if he is phobic of heights).

So when it is known that what resulted in the falling then the manner of death could be any of the 5 but if it is not known then the equivocal death analysis is performed and potentially lead to what led to the death of the person.

From a legal perspective, the cases in which psychological autopsy can be used- whether there were people responsible for killing someone, can be used by insurance agencies esp. the western ones to determine whether the death is a suicide or death is due to some other manner. If suicide then insurance can't be claimed. Also can be used by legal agencies to determine the role that someone else has to play in a suicide.

'Reconstructive Death Analysis'- Where the possible manner of death is being reconstructed psychologically.

The procedure which is followed as part of psychological autopsy is a very wide open ended procedure and this is one major problem with performing a psychological autopsy that here is no standardized procedure which is followed to conduct a psychological autopsy. It, to a very large extent depends on the experience and expertise of the psychologist who conducts the psychological autopsy.

One of the primary tool used as part of psychological autopsy is interviews with the relatives, acquaintances, friends, colleagues at work, and peers at school of the person who has died or anyone who could give valuable information in order to get the complete picture of the context of the death of the person. However there are major limitations of conducting interviews with relatives in case of suicide- that when you try to construct a narrative of the death of the person, then essentially you get a colored or subjective perspective about the person. A perspective which is shaped by the appraisals of the interviewee and the relative and there is no way to get an objective picture or understand how the person who has died interpreted the reality. So, you can get some vague understanding of the context of the person, of the environment of the person but that certainly cannot be same as the person himself. But if you integrate a large number of perspectives and data then to a certain extent it is possible to develop a potential narrative for the person who has died. The interview of the relative is the only aspect where the primary data

Downloaded by moin khan (moinamb99@gmail.com)

about the subject is collected. All the other aspects are based on reviewing information which is already existing about the person. This reviewing would encompass 5 broad categories-

1. *Reviewing the history of the person.* History would encompass any **medical condition** that the person had. Collecting Psychological history details. To collect **educational and occupational history** details of the person. Academic (educational) achievement has been known to be a direct reflector of the health (both physical and mental) of the person. If a person is physically chronically unwell then the person is likely to underperform and if is chronically psychologically unwell then is to underachieve and if is continuously facing issues then is likely to reflect in his academic achievements. Now in occupational history, for instance if the person is high on anxiety is likely to switch jobs more frequently because there is a problem of anxiety that they possess but when they start going to a workplace constantly they start associating that anxiety which triggers in the workplace. And therefore they are likely to switch their work area but the anxiety is carried with them. So, the occupational history of the person is likely to offer valuable inputs to the analysis of the psychologist concerned. Along with that the **family history** of any psychological problems or any history of domestic violence, abuse in the family.
2. *Analysis of the relationships*. This category is especially important in cases of suicide psychological autopsy where the case seems like and is more likely to be a case of suicide, where the purpose of conducting the autopsy is to understand the phenomenon of suicide and the psycho socio factors which lead to suicide and from that perspective, an understanding of the relationships of the person is very important. Specifically from the perspective of understanding any attachments or any support systems that the person had and perhaps how a lack of attachment and support systems may lead the person in committing suicide. (inter-marital conflicts, separation, divorce, conflicts with children or parents, relationship with children, parents or immediate relatives is analyzed)
3. *Lifestyle of the person.* Lifestyle would encompass an understanding what the typical day of a person would look like- the activities that the person engages in from early morning over a period of time in the entire day till the time he goes off to sleep. This is the most basic form of analysis of the lifestyle of the person. But it also focusses on looking at certain possible deviant behavior in the person. It could be a case of substance abuse, or where the person actively engaged with alcohol or drugs or was engaging with a deviant peer group.
4. *Understanding the pre-death behavior of the person.* This can be taken as the sub category of lifestyle but it forms a separate category because it gives important indication with respect to the death of the person. This analyses the behavior of the person in the past few days before the death of the person and how that behavior had changed and was different from the long standing behavior or the normal lifestyle of the person. Specifically in the case of suicides- writing a will, detachment from things that he earlier used to value and even giving away of prized possessions to other people, contemplation of various ways of killing oneself or talking of suicide in a very casual way with family, quitting job. So any deviation from the normal regular lifestyle of a person could be potentially reflective of the intention to commit suicide in the person.

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

5. *Pre-death events.* What transpired on the day of death of the person? So at max from a day before what transpired and so even if there was any intention to commit suicide is it possible that there could be other factors which might be involved and specific activities during the day or immediately preceding the event of the death, what were these events and activities and any potential valuable information which these might be offering to the person.

Last category is that of **psychological profiling**. Psychological profiling is an analysis of the psyche of a convicted criminal. So once the crime has been established, the criminal has been convicted and once the law enforcement agency knows for sure that this was the person who committed the crime then a psychologist could be employed in order to analyze this person from a psychological perspective, simply to understand what went into making this criminal and what were the psychological traits and characteristics of this person concerned. In most cases these are psychopaths and serial killers who are imprisoned and usually a psychologist is involved in assessing them and also in interventions and administering treatment. This falls under the process of psychological profiling.

Downloaded by moin khan (moinamb99@gmail.com)

09/08/2019

MAJOR LIMITATION TO PROFILING

The most important limitation of profiling which applies to all methods of profiling- that it is in essence categorical in nature and that in itself is problematic inherently from the perspective of categorizing human behavior. Human behavior is not amenable to categorization because any human trait be it a normal, deviant or an abnormal trait, varies along a continuum and therefore it becomes problematic when you are trying to make very concrete categories as far as human behavior is concerned. And therefore although in profiling we constantly talk about categorization of human behavior, it is more for the purpose of convenience and the ease with which we deal with the data rather than guaranteeing effectiveness and efficiency. So it might be at the cost of efficiency of understanding human behavior but because human behavior offers an entire plethora or range of variables therefore for us to be able to manage, handle and understand human behavior and to be able to make valid inferences out of it, it becomes important for us to categorize it but this categorization might not be a direct reflection of reality.

Even the categorization of a crime scene as an *Organized v a Disorganized crime scene* should rather be understood as varying on a continuum than being two distinct categories because even if it is not a mixed crime scene (a crime scene which has almost equal elements of organization and disorganization), it would still have some elements of other categories. Thus it is productive to understand 'categories' as lying on a continuum rather than as distinct, concrete, watertight categories in themselves. It is desired that continuums be created rather than categorization but creating continuums adds to the complexities and adds to the number of variables which you recognize are present whereas, categorization is more convenient and gives us relatively fixed categories and easier categories to work with and understand human behavior.

So, therefore in the name of convenience, in the name of ease of handling and managing and inferring data, categories are created but they might not be a direct reflection of what human behavior is actually entails.

OTHER OBJECTIONS/LIMITATIONS TO PROFILING

These are more applicable to crime scenes or geographical profiling rather than the other sorts. One of the major limitations of 'crime-scene profiling' is-

The assumption that certain characteristics of the crime scene are likely to reflect certain specific behaviors or traits of an individual which are universally applicable. This assumption of one on one correspondence is based on certain universal generalized principles to the ignorance of individual differences. So, an awareness of the fact that human behavior is extremely varied and there might not necessarily be a one on one correspondence between what is seen and the trait which actually exists. The recognition of this limitation is extremely important which gives the investigator a certain amount of flexibility in drawing conclusions about behavior. Inflexible adherence to this (limitation) can lead to an inaccurate profiles which might be created and might be of no use in the process of investigation. So one needs to be

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

careful while drawing generalized inferences about human behavior on the basis of elements which are present on the crime scene.

Another limitation applicable to both crime scene profiling and geographical profiling, more applicable to these is **the assumption of Trans- temporal and Trans- spatial or tans-situational consistency of behavior.** It is the assumption that the behavior of the criminal or the perpetrator is going to be same across situation, space and locations and across time. (The modus operandi or the manner of execution of the crime is likely to change over a period of time and also across situations). For instance, as the serial killer gains more and more experience with the commission of the crime, he is likely to lead to more refinement and at least some modification in the manner in which he executes the crime. So if we stick to elements which were seen in the first crime scene and the inference that were drawn from that then it shall lead to a misleading profile because the perpetrator is altering his behavior as time progresses through experience (like bodily changes- grows old, become weak and the manner of commission of crime changes. Initially maybe the weapon wasn't used due to strength in the person but eventually one might find the use of arms in order to control the victims a little more.).

Also there are trans-situational and trans-spatial variations are there. So depending upon what the situation has to offer, the modus operandi is also likely to change. Then one has to keep accounting for and acknowledging these changes over a period of time and across situations. As we keep introducing more and more variables, (for instance, accounting for trans-temporal variations is introduction of a variable where we say that the behavior varies on the basis of time as well) the process of profiling becomes more complicated. The purpose of profiling is to reduce variables and practice more control on the inferences one is drawing. And when one is trying to account for all these variables and process is becoming more and more complex, difficult to execute and therefore the effectiveness and accuracy might also be decreasing over a period of time.

The unsustainable assumption about the power of personality of the perpetrator to overpower the situation. Esp. in crime scene profiling, for instance, we are constantly drawing a sketch of the personality of the perpetrator and essentially say that everything happening at the crime scene is a reflection of the personality of the perpetrator and therefore it is the personality of the perpetrator and the perpetrator which is responsible for everything happening at the crime scene. We function on the basis of a unilateral assumption wherein there is a perpetrator with a specific kind of personality and that personality in turn is affecting everything and is the sole determinant of everything that is present at the crime scene. And this assumption in itself is highly flawed because if the entire crime scene is looked at with a holistic global perspective, we would find that the perpetrator is just one element in the entire plethora of elements which are affecting the crime scene, which determine what is happening at the crime scene.

Another very important element is the victim himself. So everything that happened at the crime scene also the manner in which the crime was executed is not solely the refection of the personality of the perpetrator. But is also a direct reflection of the victim. So, for instance, there was a robbery and breaking into a house and when the perpetrator actually went in he found that there was a woman present who was very strong and composed in the face of a crisis and

Downloaded by moin khan (moinamb99@gmail.com)

therefore able to put up a strong defense. So the elements found at the crime scene then would not only be a reflection of the perpetrator but also of the victim (he woman). Crime scene profiling is very significantly eliminating the role of the victim. So what is important then is to take perpetrator/offender perspective but also shift the perspective and take victim perspective into consideration. And both these perspective together in unity form an important element, an interdependent element of the crime scene. This in turn would lead to specific analysis with respect to what elements of the crime scene were responsible and are a reflection of the victim personality which in turn is likely to improve the final categorization of profile that we have because we have simply systematically eliminated the victim elements which are relevant from the victim perspective and therefore we have a clear unique offender perspective.

Also geographical profiling- when we talk about the spatial movement of the perpetrator we assume that the spatial movement is almost entirely dependent on the likings of the choices which the offender has made. But to very large extent that might also be a reflection of where a perpetrator is finding the victims, where is a greater likelihood of locating the victim to begin with. So taking victim perspective becomes important.

Specifically, the **suspect based profiling,** when we make very specific generalized principles then that becomes problematic. This is called- taking an idiographic approach vs. nomothetic approach. (an idiographic approach is about studying the uniqueness of an individual and drawing principles which highlight or focus on the uniqueness of individual behavior and differences rather than on drawing a generalized body of data. By contrast, the nomothetic approach focusses on drawing generalized principles about human behavior which are universally applicable rather than specific aspects which has to do with individual differences). When we take crime scene profiling we take an idiographic approach where you analyze data to draw principles about the traits or characteristics of one individual-the one committing the crime.

So in the context of suspect based profiling it is always said that it should take a nomothetic approach wherein behavior based principles about a general category should be drawn, principles which apply to a large number of people rather than unique principles which apply to a very small group of people. Like- where description based on nationality is given, the moment we talk about nationality we kind of minimize the group that we talk about and this becomes idiographic in nature. (Also- style, religion, etc. minimizes the group because the principle talks of a specific group then). Because someone's dress looks like that of Osama Bin Laden therefore that person is more likely to be a terrorist and this essentially is a very biased approach to suspect based profiling and needs to be avoided.

A more nomothetic approach would be- passenger pre-assessment, wherein we say that it is the behavior of the individual rather than the general description of what the person looks like that should be basis for screening of terrorism. A description like- what is the behavior at the time of booking a ticket and what is the behavior which is more likely to make the individual a terrorist- booking a single ticket, booking tickets for multiple last names on the same credit card. So behaviors like this can be done by the entire population (global). And therefore we have a principle which technically is applicable to anybody and everybody who is flying without excluding any part of the population. This becomes a nomothetic approach.

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

So crime scene based profiling should be idiographic in nature that would takes to this one individual that we are looking for. But suspect based profiling needs to be nomothetic in nature which gives us a larger target group not focusing on individuality.

Psychological Autopsy- The limitation of profiling is the lack of a standardized protocol and is only suggestive in nature. So, in crime scene based profiling we would still find some crime scene based concepts which are used (aspects like- risk assessment, organized v disorganized crime scene), you would still find that there are certain concepts and ideas, certain structure to it. But in case of psychological autopsy it is a completely open ended process and to a very large extent it is dependent on the expertise of the profiler or the psychologist who is conducting the crime. There is a rough broad protocol which is followed. Depending on the one who conducts the autopsy, the specific protocol and the procedure followed is going to vary. So there is a severe lack of a standardized procedure for conducting a psychological autopsy and brings in a lot of subjectivity in the process. And it is a relatively newer concept so perhaps there is a need to develop a standardized protocol and procedure to conduct it.

On the other hand, **psychological profiling** is considered to be a very robust form of profiling and it is because the situation is such which can lead to a very high level of accuracy. We know who the perpetrator is and we use very standardized tests from the field of psychology. Procedures and aspects that have been researched, developed and standardized over a long period of time. And therefore use an objective criteria in order to get details of the characteristics and personality make up of an individual who is known to us. And therefore it lends itself to very high accuracy and effectiveness rates. But it is not true for psychological autopsy. Another reason for it being that the individual to be studied is dead and thus no objective way of obtaining data from a person who is dead and this then would inherently have subjectivity.

INVESTIGATIVE PSYCHOLOGY

Psychological sketch of a person is profiling and that is an investigative tool. Investigative psychology is a broader branch and 3 main aspects of investigative psychology (there are others as well) are to do with **profiling, deception & lying and with offender identification**. All of these are techniques which aid in investigations. So profiling then becomes a specific sub domain of investigative psychology where the crime scene is investigated and the profile of the perpetrator is created. The second sub domain is- deception and lying, when you take for instance, interviews, talking to people (investigating a crime) and through the process try to figure out whether the witness or a suspect is telling the truth or is trying to lie and this is a specific application of detection of deception techniques and specific reteach in that area. The third being- offender identification which has to do with, for instance a witness is brought in a legal set up and is asked to identify who the perpetrator was then what are the possible errors in this process. Then eye witness testimony becomes a part of identification procedures.

Investigative psychology is a term which was first used by **David Canter** in 1985 specifically in the context of Scotland wherein Canter proposed that the processes of investigation, the procedures which were undertaken by Scotland yard to investigate their crimes should be

Downloaded by moin khan (moinamb99@gmail.com)

integrated with principles of psychology and essentially to make these procedures and techniques more sound and robust in nature. So the underlying psychological principles should be discovered and therefore only the discovery of these underlying fundamental psychological principles are likely to lead to a more better set of procedures in place. A modification and a betterment of the techniques and procedures which are used during investigations and that essentially was result of an active recognition by Canter that when you are investigating there are essentially humans involved as part of any investigation and in order to improve these techniques of investigation which are being used on humans, an understanding of human psyche is extremely important.

Canter defined Investigative Psychology as the application of psychological research and principles to the investigation of criminal behavior. So in any field wherein we utilize a psychological understanding of individuals under the larger domain of investigation during an investigative process that would then qualify to fall under investigative psychology. It is a broad open ended definition which is true for any of the sub domains of psychology. It is only for our better understanding and convenience rather than offering any separate individual value in themselves and therefore have separate domains under forensic psychology.

Specifically while describing investigative psychology Canter said that during investigations any behavioral or psychological analysis is likely to serve 3 basic purposes for us.

1. Understanding the behavioral content of the crime which is committed with the end goal to ensure better identification and prosecution of the perpetrator. So when we classify crime scenes as organized and disorganized, we are essentially doing that on the basis of certain behavioral content which is present there, which is how the crime was executed.
2. To draw an inference about specific characteristics and traits of the perpetrator again with the end goal to identify the perpetrator.
3. The prediction of criminal behavior with regards to when, where the next crime is likely to be committed in case of serial killers or simply what are the other kind of criminal activities which this individual is likely to be involved in.

So then any psychological analysis which is done as part of investigative psychology should have a descriptive and explanatory value and inferential value but at the same time it should also have a predictive value wherein you are trying to predict the future behavior of the offender or trying to predict the other kinds of crime which the individual is likely to commit.

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

10/08/2019

DECEPTIVE BEHAVIOR

Trying to present a picture which actually is not true and could be about oneself or regarding anything at all. Within the criminal justice system deception and detection of deception is very common because whenever there are investigations, interviews with witness or potential criminals, then the investigator always has to be careful with respect to whether a person is telling the truth or not. So even when the person is not actively involved in using technique which are associated with detection of deception, in any criminal interviewing process, the awareness of whether the person is lying or not or focus on some queues that the person might be giving out which might be indicative of lying should always be kept in mind.

A deceptive behavior has broadly been understood as 'any behavior which is aimed at concealing or giving out incorrect information and could be complete concealment of information or misrepresentation of information with the intent to mislead the investigator or the criminal justice system. When incorrect facts are given out without the intention (out of no awareness, inadvertently, accidently giving incorrect facts) of misleading the justice system then that wouldn't qualify to be a deceptive behavior. Establishing intent is difficult. To establish intent we end up using same queues and the same techniques that we used for detection of deception in general.

The most basic question that arises is- Are people any good at detecting deception or lying?

Familiarity with one particular person can play a role in you getting a feeling whether he is lying or not (like when you are friends with someone). But the general answer given by researches is- NO and people are not good and do not have the capacity to detect deception. In fact research tells that layman's ability to detect deception is actually poor in most cases. A lot of this research is done by- **Paul Ekman.** He has done research in the field of psychology in non-verbal behavior and specifically started the research with the establishment of the fact that there are a lot of universal queues which are associated with certain emotions and therefore they are innate in nature. Ekman used people from multiple cultures and he used the pictures of these people emoting and exposed a lot of individuals with these pictures (shown them). This research essentially suggested that irrespective of nationality, ethnicity, race, color and the background- he was still able to gauge the correct emotions by the facial expression (the most basic expression- happiness so whenever anyone would see the pulled muscles on the face anyone would know that the person is happy and thus this being universal). He said that culture does not necessarily play a role in determining the expression of these emotions and therefore these emotions become universal in nature. This was the base how Ekman started his research in emotions.

So in his research upon lying and deception by regular normal people he concluded that people normally don not have good abilities to detect deception and people are no better to detect deception in more than 60% of the cases. (This 60% in isolation might seem a significant number but purely basing the judgment on whether someone is lying or not on chance factors then what are the probability that you will be able to detect whether someone is lying or not). So when we are asked that whether a person is lying or not then our chances of guessing it right would be

Downloaded by moin khan (moinamb99@gmail.com)

50%. So if your chance of 50% of being right and then your own logic amounting to 60% then it is not of significance.

Another point brought up was that it depends on the experience of the investigator. A lot of research of Ekman tells that even when an individual has experience and an individual is very confident with regards to the accuracy of his response (whether someone is lying or not), even in these cases the figures are not very pleasing. And they are no better than a layman in detecting deception. 29% is the highest figure that Ekman has arrived at and says that 29% of experts in the field of detecting deception- individuals who have significant amount of experience in the area, even when research is done on these people-roughly not more than about 29% have accuracy rates greater than 80%.

What differentiates one who has high ability in detecting deception from someone who is not doing as well? He says that individuals who actually had an accuracy over 80% relied on multiple queues and signals of potential lies which an individual was giving out. So, instead of relying only on non-verbal cues (cues which are more frequently looked at when one is trying to gauge whether there is deception or not) most good detectors rely on both non- verbal and verbal cues and multiple specific signals which the individual gives out and this increases the accuracy of detecting deception. He also points out that an individual who has a lot of experience (older investigators) were to a certain extent less accurate in detecting deception esp. in cases where proper training was not given to these individuals (only experience and no training).

The first and foremost reason which Ekman gives for that is **Functional Fixedness.** It is a kind of a heuristic (heuristics are mental shortcuts, rule of thumb which we use frequently and rely on them because it is a convenient, quicker way of processing information and uses up fewer cognitive resources. But they might not necessarily be accurate.) and is a result of the usage of a lot of heuristics. When we rely a lot on heuristics then it might result in a particular form of or manner of thinking or appraising information which is called functional fixedness. And we have a tendency to use objects as they have been traditionally used or solve problems by using the same techniques which we have traditionally used to follow those problems and functional fixedness then restricts out of the box thinking. Functional fixedness restricts your creativity.

Now applying this concept to this particular area, Ekman said that individuals who are old and have experience suffer from high level of functional fixedness which means they tend to appraise the cues which they get from an individual in very traditional ways (ways which have been used ever since) and this results in limited ability to come up with new and novel ideas to appraise cues and therefore the ability to detect deception is poorer than individuals who have just started and have little experience. This is the cognitive reason.

The second reason that he states is poorer observation powers. So younger individuals have better observational powers, better abilities to gauge verbal and non- verbal cues from interviewees as compared to older individuals who because of age, monotony of work, lack of interest results in poor observational abilities. Ekman also pointed out that there are no real gender differences in detecting deception in layman or an experienced individual. Men are as good as women and are equally at par in detecting deception.

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

Experience and training do not go hand in hand. So individuals can be trained to become better at detecting deception if adequate training techniques and updated training techniques are used in training these individuals. So studies with respect to trainings give mixed results with respect to the impact of trainings. In fact most studies tells that when training techniques which are used are traditional and old and may be outdated in nature then that might actually lead to decreased accuracy rates as far as detection of deception is concerned. Studies show that a lot of detectors of deception who are trained in the Reid method of interrogation and observation do not actually perform better than individuals who are not trained. Reid method is a traditional method of interrogation and observation of cues and thus lead to poorer abilities to detect deception and one of the reasons why this happens is – functional fixedness because they have been trained in a certain way which might be outdated which is restricting them to those outdated traditional ways and they kind of do not use any new or novel ways of detecting deception. But at the same time what also is at work is the false confidence level which an individual gets and confidence has in most cases been negatively co-related with accuracy which means that if confidence levels are too high and individuals are not well equipped to detect deception then it is likely to lead to poorer accuracy rates in detecting deception in individuals. So poor training methods convey false confidence to people in their ability to detect deception which in turn results in poor accuracy. But if more up to date techniques are used to train individuals then training is definitely likely to have a positive impact in detecting deception.

Truth Wizards- It is the term specifically used in the context of these people who have been well trained and are aware and use multiple avenues. And they have excellent accuracy levels. They use multiple cues to detect deception: non-verbal, verbal (good mix of both) , they also have training in multiple techniques of deception and because of this rich arena of techniques that they are aware of their accuracy rates are significantly high.

Comparative studies which have been done on actual real life high stake situation tell us that the avenues which can be used to detect deception in high stake situations are actually very different from the avenues or cues which are used in low stake situations. So in high stake situations which is close to real life situations where risk is high uncertainty is high and emotions are intense, in these situations the emotional cues are very prominent. Emotional cues which give away signs of deception. Ekman proposed the theory of- **Leaky Channels Theory** and said that when individuals are experiencing very high levels of emotions then individuals tend to give away some cues through channels which are normally not used as part of communication. So in a normal, relatively relaxed situation people tend use certain avenues and these avenues are prominently verbal avenues and some basic nonverbal avenues for communication. But when stakes are high and is a high risk situation then very inadvertently in a very unconscious, automated way people start using certain channels which tend to leak certain cues which are associated with deception. These channels are emotional in nature and these channels might not always be used as part of communication. It is these emotional channels which can be capitalized upon by the investigator to detect whether a person is trying to deceive or whether a person is lying. And thus the term Leaky Channels.

Downloaded by moin khan (moinamb99@gmail.com)

Second situation where the stakes are low, are situations when there is an experimental set up. When we experimentally try to study deception and lying then typically that would be a situation where the stakes are low, where people are asked to lie and deceive and they are studied and analyzed. Researchers tell that in these situations people tend to rely on thinking cues instead of emotional cues or leaky channels, are more adequate in determining whether a person is lying or not.

LEAKY CHANNELS V THINKING CUES

Thinking cues would be with respect to what is actually being said, the facts which the witness is disclosing about the events which took place. Certain slips of tongue or the manner in which he is saying and one of the typical ways in interrogating this person in case of a low stake situation would be to gauge the inconsistencies in what he has said and to challenge those inconsistencies at a later point or to look out for facts which are contradictory to the investigator's pre-existing knowledge and to later on challenge and say that we have evidence which supports otherwise and you said this so how do you justify this! A reliance on what is being actually said, a reliance on more reason based rational argumentation and counter argumentation is more apt for situations which are less emotional situations and are not as high risk. Whereas on the other hand a reliance on emotional cues, for instance, cues associated with high levels of physical arousal. Now nonverbal cues associated with arousal- sweating, fidgety behavior, shaking ones leg, facial expressions where it appears flushed and muscles tensed, the amount of eye contact which the person is making- if lying then lesser amount of eye contact. All of these would qualify to be basic and typical emotional channels which can be more relied on when the emotionality of the situation is high and intense.

Why do nonverbal cues potentially have been considered as very important science of deception why do they give away or disclose deceptive behavior?

There are multiple theories and approaches but 3 most pre-dominantly used approaches have been used to explain nonverbal cues and their relationship with deception.

1. **The Emotional or Affective Approach-**
2. **The Cognitive Complexity Approach/ Cognitive Capacity Approach**
3. **The Attempted Control Approach**

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

17/08/2019

1. **The Emotional or Affective Approach-** Addressing the question- why do emotions give way to deceptive behavior. Why behavioral manifestations are linked to high emotionality? We say that there are emotions that a person is experiencing and because of them there are some very evident behavioral manifestations and because in case of lying the physiological arousal is high therefore these can be considered as potential signs of deceptive behavior. Some people specifically categorical serial killers would experience excitation at the thought of having deceived someone. So lying about their criminal behavior would point that there is a possibility that they actually believe that they can get away with it also leads to excitation. And to that extent it is not essentially a negative affect or negative emotion but a positive emotion. But will lead to similar behavioral manifestation of physiological arousal. So a good mix of both negative and potentially positive emotion which might give way, at an emotional level, to deceptive behavior. Behavioral manifestation of physiological arousal- sweating, fidgeting, gaze aversion, inability to sit comfortably on a chair, fiddling with objects around, dry mouth, blinking a lot of times.

A problem/major drawback with using the emotional approach as a technique of detecting deception. For instance if we consider that there is an interviewee (potential suspect/witness) who is being interviewed with respect to certain crime and is showing these kinds of physiological arousal, then I am considering the possibility that he is probably lying and trying to deceive. What is the flaw with this logic? This approach is the most initial, primitive approach which is being used to detect deception which is still being used currently but one of the major drawbacks of using the manifestations of a high emotionality as a kind of deception is a fact that these manifestations of emotionality are actually more of a reflection of stress and anxiety rather than a reflection of deceit and lying. So considering witnesses who are telling truth or who have not done anything, they are also worrying and fearsome of not being believed. So the emotion of fear is something which is not specific to the person who is trying to lie but is also present generally in everyone who is being interrogated. And thus the ones who actually tell the truth also due to fear and anxiety of not being believed undergo physiological arousal.

A lot of procedural evidence (Empirical Evidence- comes from empirical studies and researches which have been conducted artificially with the purpose of studying a particular behavior. Procedural Evidence- Essentially comes from normal procedures which are followed and an analysis and observation of these normal procedures which are followed in reality when an actual crime is committed and evidence obtained from those would fall under procedural evidence) and studies conducted on observation and analysis of individuals who actually either committed or not committed crime, suspects who have been interrogated by authorities and specifically suspects who potentially face long term sentences in case they are found guilty. So a very high stake situation where emotions are intense and a lot of research in these set ups tell us that in fact a lot of suspects do not show a sign of gaze aversion and fidgeting which is considered as typical signs of high emotionality. So the emotional approach would say that a person lying would blink more often and not make eye contacts would fall under gaze aversion and fidgety behavior

Downloaded by moin khan (moinamb99@gmail.com)

would be an indicator of deceptive behavior according to the emotional or affective approach. But procedural evidence suggests that gaze aversion and fidgeting are not really associated with deceiving in an actual high stake/stress situation. In fact the behavior which is depicted more often in these situations is just the opposite. There is a high likelihood that the individual who is likely to lie is actually fidgeting less and tend to engaging in lesser amount of gaze aversion. These behavioral patterns of lower gaze aversion and lower fidgeting behavior is better explained by the other 2 approaches.

2. **The Cognitive Complexity/Capacity Approach-** It is based on the fundamental assumption that individuals have limited information processing capacity. This idea was first proposed by **Daniel Kahnman** who gave the information processing models of human cognition and projected that individuals have limited mental or cognitive capacity to process information. (One of the theories of 'attention' talks about how we have limited information processing capacity which is why we are selectively attending to a set of stimuli and preventing another set of stimuli from entry into our cognition because we are incapable of processing and attending to all sensory stimuli which are impinging upon our senses and the theory goes on to explain what are the factors which determine which bits and pieces of information would be selected to enter into our cognition) and all the behaviors that we are engaging in are essentially utilizing these specific limited information processing capacity. Every possible behavior and also all the involuntary activities (the fact that you are breathing automatically, heart beating, lungs moving) are also utilizing that part of that limited information processing capacity in order to engage in any or every behavior, whether voluntary or involuntary.

Considering, how the act of lying is in itself a cognitively demanding activity. Comparing the 2 situations- where someone is telling the truth and engaging in minimal information processing. So simply just drawing the truth from ones memory which would take up some information processing capacity but simply drawing information from someone's memory and splitting it out versus the process of fabricating a lie which is a way more complex process which also engages several multiple processes at the cognitive level. So on one hand one is fabricating and at the same time trying to remember what one is saying. So it is a process of creation and formulation of a memory at the same time. So if I lie and tell a false story and telling a false story but I am also at the same time remembering or memorizing everything that I am telling you which is also cognitively engaging. One of the foremost reason for doing that- to remember what I have told you so that at a later point I don't contradict myself. At the same time in an interrogative situation, while a suspect or an interviewee is fabricating or creating a lie and he is also taking into account that the interviewee explains or accounts for all the evidence which the investigative agencies have at hand. Again it is something which is cognitively more stressful.

Along with all the verbals which the individual is creating consider all the nonverbal which the person is taking into account. So the person is also taking into account one's own body language, the person knows that probably one's body language and nonverbal can be indicators of deception. So a constant monitoring of one's own body language and the indicators which the investigator is communicating in order to make sure that the investigator is actually buying what the person is saying and constantly monitoring the reactions of the investigator itself.

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

At the end of all, the very act of suppressing the truth. So the very fact that I know what the truth is and because I am lying therefore I need to suppress the truth and deny it. And suppressing the truth in itself is a cognitively demanding task. The pre frontal cortex is way more illuminated when the person is simply denying the truth as compared to person who is committing to the truth. Pre frontal cortex is the executive center of the brain and is the working memory and the part where all the cognitive information processing essentially takes place. A lot more cognitive resources are exhausted when an individual is trying to lie as compared to when a person is telling the truth which means that lesser amount of cognitive capacity or information processing capacity is then available to engage in all other kinds of behavior. So all the involuntary activities cannot stop (breathing, heart pumping, digestion, blood circulation all cannot stop) and what the person can do in stopping at a voluntary level, the cognition would try to conserve the limited processing capacity which is now available to person and this essentially then happens in cutting down other behaviors of the person which includes- blinking, moving one's eye here and there which might increase the level of eye contacts, gaze aversion- a sign of stress and anxiety, the person is more likely to make speech related errors, speech latencies (taking more time between two words or two sentences than normal meaning that he has to think harder to use language in comparison to a normal person or person telling the truth) would add to cognitive load.

Added to this the entire ideology of cognitive load essentially say that the cognitive load of somebody to test whether a person is lying or not if we further increase the cognitive load in some cases then it is likely to lead to an increase in the behavioral manifestation of cognitive load meaning that normally an individual is utilizing a certain chunk to lie or deceive and the increased information processing capacity which is required to lie then the size of cognitive load will increase manifold. And this essentially is done by the use of cognitive load induction techniques.

Cognitive Load Induction Techniques- Simple techniques targeted at increasing the consumption of the cognitive capacity of an individual. One of the most commonly used techniques is after the individual has completed narrating the series of incidences, the individual is then asked to recall the incidence in a reverse order. Even for a normal person telling a series of events in a reverse order is vexing. Considering someone who is already exhausted a major chunk of the cognitive capacity this would take up another chunk of the cognitive capacity leaving very little cognitive capacity for the individual to process all other behaviors and this essentially would reflect in greater number of signs of cognitive load which the individual will then start manifesting. An as result speech errors, latencies are likely to occur because very less capacity is left to process the information. Also leads to movement in arms and fingers and thus the fidgety behavior. This is opposite to what the emotional approach says.

Another way to increase cognitive load is by introducing secondary concurrent/parallel task along with the primary task which is the task of telling the story. This secondary task even if is simple, uses a lot of part of the information processing capacity of the person. So even if the task is simple, the research tells that in such a case the errors on both the primary and the secondary task is likely to increase.

Downloaded by moin khan (moinamb99@gmail.com)

Another technique which can be used for instance, after the person has narrated the series of events there is some unique evidence presented to the person at later stage and the person is then asked to account for that new evidence or info within the realm of the narration that he has already given. Now he has to engage in greater level of cognitive information processing and thus exhausting the cognitive processing. Along with fabricating the lie he now has to integrate this new bit of information which would be additional cognitive load.

3. The Attempted Control Approach- Accounts for lower gaze aversion or lower levels of fidgety behavior in a person who is actually telling a lie. This approach essentially says that individuals who are lying, most of these individuals are coming to the investigative set up with some pre-planning. The very fact that they know they have to lie, that they have to deceive, there is some amount of pre planning in the head which already is going on when he is entering the set up and if time is given to them then a large part of this planning is already happened before entering the investigative set up. Planning with regards to what to tell and how exactly they would tell it. Now when these individuals are planning they are also aware that the body language might disclose signs or indicators of deceit. So while they plan, they also plan that how they would behave, appear to the investigator. In turn what happens is that when they control and regulate their own behavior they end up over controlling and then engage in behavior which appears very regulative and pre planned and also rigid to a certain extent. Also lacks spontaneity. Because they have planned and regulated their behavior, they are not very spontaneously engaging, even in normal behaviors which truth tellers engage in. Research tells that when individuals are given the time to plan they actually may end up making longer eye contact than a normal individual would. This individual while planning is aware that less eye contact is an indicator of deception and lying. In trying to monitor their behavior they try to sort of cover up this gaze aversion by deliberately making longer eye contact and end up over regulating their behavior.

Also one would be aware that excessive fidgetiness or any reflection or sign of uneasiness is likely to reflect deception or lie and therefore they end up in appearing very rigid and inflexible.. Research also tells that individual who are lying actually end up smiling more often than truth tellers in an interrogative set up. In order to mask their deceit they end up over controlling their behaviors .

These are few of the important approaches which are used simply when direct observation is being used to detect deception without the use of any specific strategy or aid in order to detect deception. Also all these 3 might be happening at the same time. So the individual might be depicting signs of anxiety and physiological arousal, might be trying to over control for one's behavior and also have exhausted to certain extent one's cognitive capacity and thus show signs of cognitive load. Today there is active recognition that simply the use of observation in detecting deception without the use of techniques and aids is not a very effective way of detecting deception.

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

21/08/2019

TECHNIQUES TO DETECT DECEPTION

Unaided Techniques- Investigators are trained in certain strategies which enable them to be better detectors of deception and are techniques which do not use any technology or other aid.

Technological Techniques- Where technologies are used to detect deception and which is the scenario today where invariably every case detecting deception uses technology. This has happened due to the recognition that no matter how much training is given, the human ability to detect deception is limited. Also there is no harm if technology is available, then using technology is always beneficial and increases efficiency.

As far as human strategies to detect deception are concerned, there are 2 strategies (unaided techniques)-

1. **Strategic Use of Evidence-**Focusses on the kind of evidence which the investigator or the law agency already possess with them with regards to the particular crime that is investigated. And this technique bases itself on the fact- if the investigator possesses some sound evidence and if he is himself well equipped with the evidence that is available with him with respect to the case in hand and also with respect to the suspect in hand then that can be utilized to increase the effectiveness and the efficiency with which the detector can detect deception. It has to do with the manner in which the questioning takes place and the manner in which the existing evidence is kind of integrated and utilized in the questioning strategies by the investigator. This technique came into light when investigators in the field of psychology started studying the psychology of guilt and innocence, what are the cognitive biases which an individual has when an individual is guilty versus when he is not guilty. That reflects in the kind of strategies which a person uses while he investigated. So whether a person is guilty or innocent is in turn likely to determine the basic psychological biases which an individual uses during ones cognitive appraisal of the situation and which in turn is reflected the strategies which a guilty person versus an innocent person brings in to the investigative situation.

***Aversive Conditioning*- In the context of phobias, phobias are essentially avoidance reaction and the entire conditioning paradigm is aversive conditioning. So there are 2 kinds of responses here- Escape response and the Avoidance response. In context of the Rat waala experiment,

Escape response and Avoidance response- After the electric current is passed at the base of the chamber, the rats jump across to the other chamber. Escape learning after the onset of negative stimulus. Another stimuli is coupled with the onset of the electric current, so if classical conditioning is coupled with operant conditioning wherein there is a buzzer that goes on and after that the electric current is passed then the rats will start jumping across to the safer chamber even before the onset of the current. This then is the response not to the passage of electric current but the buzzer. This becomes avoidance learning.

Downloaded by moin khan (moinamb99@gmail.com)

Aversive conditioning pre supposes the existence of both forms of responses (avoidance and escape).

The theory behind this technique posits that an individual who is guilty is more likely to come in the investigative situation with a specific strategy in mind which innocent subjects would not probably have and even if they do have, it wouldn't be that detailed a strategy. The strategy brought in by the guilty person is based on an aversive conditioning. The guilty individual will try to avoid any situation which is threatening or which potentially has any punishment. So people avoid the mentioning of any information which is likely to lead to a conviction or which is likely to generate a threatening response. So the initial response is an avoidance response when the interviewee is narrating the sequence of events he is to avoid any information which can potentially lead to conviction. However if the individual is directly confronted with any such potentially threatening information or one which can lead to a conviction, then he is likely to engage in an escape reaction where he will actively deny that information.

On the other hand, an innocent suspect do not come with pre-determined strategies. What they do come with is a mindset where they tell themselves that if they are honest and disclose everything honestly then they are more likely to be believed and this particular thought pattern is termed as- 'Just World Belief System or Just World Bias', which essentially means that if we do good then good will happen to us and thus the belief by the innocent suspect. But however this might not be true and thus it is called a bias. So if an investigator is coming to investigate a suspect then the he will be suspicious or doubtful of the person concerned. The bias might not necessarily be true but what is important is that innocent suspects believe that they will be believed by the investigator whether or not that might be objectively true.

Also an associated cognitive bias which seen pre dominantly along with this bias in innocent suspects, is the 'illusion of transparency'. It is our tendency to overestimate the extent to which the other person knows about our mental states or our internal states. We tend to believe that we are transparent and therefore the people observing us also have an objective picture of our mental states. It is prevalent in cases of public speaking, like- where a person while speaking in front of a bunch of people believes that if he is too nervous or too anxious then others would probably perceive his anxiety and nervousness and therefore he is going to engage in behaviors to mask that anxiety or the nervousness. But this might not always be true- if a person meets someone for the first time then the other person would not be aware of basic behavior patterns and if one does not know the other then it is hard to tell if something that the person engages in is a characteristic behavior of his or is it a reflection of anxiety. And illusion of transparency is- when one knows about the other's internal state.

The strategic use of evidence is based on the fact that the psyche with which a guilty individual comes into the setup is different from that of an innocent person and therefore if the investigator uses the evidence he knows in an appropriate way to investigate or question the 2 sets of individuals then he is more likely to detect who is lying and who is not. Basic elements of strategic use of evidence includes-

- The investigator shall be thorough with the evidence that he has in his possession.

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

- Location of crucial bits and pieces of evidence which are potentially incriminating and have enough potential to obtain a conviction against the suspect.

  Locate those bits and pieces which the suspect might not be aware that the investigator knows. The investigator is then expected to structure his questions around those bits of information and pose those questions to the suspect in a manner that the suspect is not aware that he is being pin pointedly being questioned about those bits and pieces of evidence.

- Building questions around the pieces of evidence in a vague camouflaged way such that when the suspect is questioned he doesn't feel that he is specifically being questioned about that piece of evidence.

The process simply depicts- to get a free recall from the suspect with respect to the chronology of events that took place followed by a questioning by the investigator wherein the focus of the questions then becomes these pieces of evidences or information which are crucial for conviction but are not known by the suspect. If the investigator directly asks a question with respect to something that the suspect has avoided previously, the suspect shall switch from an avoidance to an escape reaction and he will deny it. And once the escape or denial reaction comes in, it sort of blocks the ability to collect any further information from the suspect.

In case of innocent suspects then the suspect will probably mention all these bits of evidences that the investigator has sort of delineated and therefore there will be very little evidence of the avoidance reaction and no question of the escape response tendencies.

The process of analysis here is simply targeted at locating statement-evidence inconsistencies. Research tells that when a suspect is guilty then during questioning at multiple times he is going to make a statement which is inconsistent or which counters the evidence which the investigator already has and therefore the number of statement-evidence inconsistencies are likely to be high in guilty suspects. On the other hand, individuals who are innocent, statement-evidence consistencies are likely to be high wherein these individuals are asked to explain any situation then they are likely to make statements which are consistent with the evidence which the investigator already possesses and therefore the statement-evidence consistencies are likely to be very high. Even at times if there are inconsistencies, even if the statement which the suspect gives is countering the evidence has the consistencies to be way higher. So if there is some incriminating evidence which the investigator has which makes the person a suspect, if the suspect is innocent then he is likely to adequately explain that evidence which he has. The avoidance reaction is not going to be there and if he is questioned about it in an indirect manner and even if there is an avoidance reaction (if the person forgets it or feels that it is not worth mentioning) then the escape reaction is not going to feature in because when he is asked to explain then he is likely to do it in an adequate manner if he is being honest and is innocent. The entire technique revolves around locating statement-evidence inconsistencies in guilty individuals.

Research evidence offers very strong support for this technique and tells that investigators who are trained in the strategic use of evidence, in locating evidence which is of importance in

Downloaded by moin khan (moinamb99@gmail.com)

the particular case and structuring their questions in an ambiguous manner- these investigators are way more effective in detecting lies and deception as compared to investigators who are not trained so. Accuracy rates as high as above 85%- 90% have been seen.

Another important element highlighted by research is that individuals who are trained in the strategic use of evidence are more efficient in increasing the cognitive load (cognitive load induction can be a technique of detecting deception and the behavioral response generated out of cognitive load induction can offer important cues whether a person is lying or not) of guilty suspect as compared to innocent suspect. This strategy also plays an important role in extent of cognitive load which is induced in a person, specifically, if the method of questioning is right then suspects who are guilty are likely to experience a greater level of cognitive load as compared to suspects who are innocent which is extremely desirable.

2. **Reality Monitoring**

It is a way of content analysis. Initially it wasn't even developed in the field of law and was developed just to see how people recall information. A process of analysis used in the area of cognitive psychology and specifically a methodology used in qualitative research analysis in psychology and a specific technique under the broader sets of technique that we call CONTENT ANALYSIS or NARRATIVE ANALYSIS. Basically there is some written content that we have and we analyze that content (book review, character sketch- a form of content analysis). Under this there is a specific technique which is called Narrative Analysis- an individual gives in depth account of something and this narrative is analyzed to get a sense of the psyche of the person (an analysis of the experiences of the trauma victims- detailed accounts of what happened with them, what they went through). One particular form of narrative analysis is reality monitoring and studies the difference between fictional content (been created out of the imagination of person) and factual content (actually experienced). This strategy finds application in the field of law wherein on the basis of the account which the suspect or the interviewee has presented (narrative), one tries to gauge whether this narrative has come from a real source of information or from a fictional source. Simply a process to determine that the statement which the suspect is giving is sourced from an actual experience (implying that the person is telling the truth) or if the narrative has elements which are reflective more of fictional creation. A process of assessing or judging whether a person attributes the source of a memory to an external event or an internal event. The statement made by the person essentially comes from the memory and is a recall of the memory.

Memory coming from external source- what was actually happening, an experience (inference- that the person is not deceiving)

Memory coming from an internal source- fictional, imagination (inference- the person is lying)

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

24/08/2019

Fundamental basis or the basic premise of reality monitoring is the fact that memories which have been gained through experience are qualitatively different from memories which have been created. The difference lies because when an event is experienced then the series of event's information has been gained through external information (information taken in through sensory process) and then the account of that information is likely to be rich in perceptual or sensory information. A lot of this information comes from the study done by **Maricia Johnson and Rayo.** They were the first one to write in detail about the qualitative difference between an experienced memory and a created memory.

How qualitatively different? Memories gained through perceptual information would be rich in perceptual processes (based on sensation- info taken in through the 5 senses). The starting point of any perception is sensation. Specific criteria/guidelines which will reflect whether a piece of information is high on perceptual information and studies suggest that these can roughly be divided into 3 categories-

1. SENSORY INFORMATION- Information or details about aspects which are related to the 5 senses. High on visual information, auditory info, on info which is to do with smell and the taste of certain aspect. So the descriptors would naturally include elements related to the 5 senses and also with respect to tactile information.
2. CONTEXTUAL INFORMATION- Information which reflects perceptual processes is high on contextual information, predominantly meaning the information which is to do with time and space (temporal and spatial information). How objects and people were placed around in the given space and when did the event take place and how long did the event extend (a chronological production of info would be an inherent natural part of that recollection)
3. AFFECTIVE INFORMATION- Details about feeling and would include details about feeling of the self (how did the person feel while witnessing the event) And also how did the other people in the setup feel.

Because information has been gained from an outside source through perception therefore it naturally becomes rich in all of these elements. Another element associated with it is the element of vividness and clarity. Because an information is not created or fabricated and is actually witnessed, therefore the memory of it is more likely to be vivid and the info gained through perceptual processes is again likely to be clear in the description.

By contrast the memories which are created, invented, essentially are not gained through perceptual experience. The person has not experienced the events through sensory perceptual process but at the same time has created these events. So because they are created they are likely to be high on cognitive (created in mind) processes rather than perceptual processes. Since the basis is cognition, these memories have a higher content of reasoning, analysis or thinking in general. For instance, a descriptive like- 'I was wearing a coat, it was very cold that night'. In contrast to this a description which actually is exactly the same but instead of presenting sensory information the focus is on reasoning- 'I was wearing a coat that night "because" it was very

Downloaded by moin khan (moinamb99@gmail.com)

cold.' The first description focusses more on sensory information ('wearing coat'-external object, very cold- sensation). The second description providing the same information but the focus becomes the reasoning there (trying to justify that information). Both narratives will have perceptual and cognitive elements to it but it is the extent of reasoning and the relative amount of perceptual and cognitive processes which gives an inclination towards whether it is an actual experience or imagined experience. 'As I entered the house, I heard the window glass crack' vs. 'As I entered the house, I heard a loud noise. It probably must have been the window glass that broke.' Considering that at the time of experiencing the event, the person entered the house, there was a loud noise and after the person went upstairs he saw the glass shattered. So when that memory was formed that inference of the glass shattering and the noise associated with the glass shattering was encoded and stored in the long term memory of the person (real example of constructive and reconstructive process).

**CONSTRUCTIVE AND RECONSTRUCTIVE PROCESS*- Processes which are at work which alter memory at the time of storage. Reconstructive processed essentially are alterations in the memory once the memory has been stored.

The memory which was stored at the time was that the glass broke and therefore the person after actually experiencing that event is giving a recall of that event- 'As I entered the house I heard the glass break', when the person actually entered the house did the person know that it was the glass of the window broken- NO. It was just the noise but because the memory stored was a collection of all the inferences that were drawn at the moment therefore the actually memory stored is likely to be high in perceptual and sensory processes. On the other hand, the second statement is loaded with reasoning because the person while imagining that event has actually reasoned that out actively in his head to create that event at a very conscious active level and therefore when the person is recollecting or recounting the event, the memory also in turn is high on reasoning (that because there is a noise, there must be the glass broken).

When it actually comes to the content analysis of such narratives, there is no standard format which is followed and no standard prescription which is given as to how exactly such information needs to be analyzed but in most cases analysis is usually done under 5 broad heads-

1. CLARITY AND VIVIDNESS- memories gained through actual experience naturally have this element of clarity and more vivid in the accounts which they produce as compared imagined and created memories and lack a sense of clarity. And thus relatively more vague in their approach because the person has not actually experienced that event.
2. SENSORY INFORMATION- information with respect to, say, the taste- 'A cloth which was tied to my mouth and it tasted salty.' An experience which has actually been taken through perceptual experiences, on the basis of senses, a narrative is likely to very subtly interweave all of these details very naturally (tasted salty). Whereas somebody who imagined it is likely to say that there was a cloth tied around his mouth but probably would not be bothered about mentioning the taste of it. With respect to touch or the feeling in terms of pain that a person got- 'I tripped, I fell on my hand and I had a shooting pain.' Very subtly woven but it gives an expression that the person actually experienced it in contrast to just a description that 'My eyes were tied therefore I tripped

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

and I hurt my arm.' This person might also have said that there was pain my arm but somebody who describes that pain or adds a tactile description to it (I had a shooting pain in my arm) is probably giving an account out of an actual experience rather than an account that he has created. LOUD NOISE- Imagined. LOUD SHRILL NOISE (sensory descriptor) - actual experience.

3rd and 4th Category based on contextual information

3. SPATIAL INFORMATION- with respect to the location of objects and people within the visual field of the person. If the person has actually witnessed the crime scene then this person is more likely to naturally imbibe information with respect to what was located and where. Instead of saying that the husband and wife were present he is more likely to say that the wife was standing to the left of the husband.
4. TEMPORAL INFORMATION- Information with respect to what day was it, what time of the day was it- a clear sequence of events. Clarity with respect to the chronological order of the events.
5. COGNITIVE OPERATION- the extent of reasoning that the person has engaged in and specifically in comparison to the extent of sensory and perceptual information that the person has given. So any reasoning, any analysis that the person is engaging in would then be a part of this category.

Any narrative which is likely to be created or imagined is going to be high on the 5th category and any narrative which the person has actually experienced and if the person is telling the truth then that narrative is likely to be high on the first 4 categories and low on the 5th category. Research documents that if content analysis or narrative analysis is executed properly, this technique of reality monitoring has very high accuracy rates and so is a very effective technique in figuring out whether the person is deceiving or not.

LIMITATIONS OF REALITY MONITORING

This technique is based on the assumption that a lie which the person is stating is essentially necessarily created by the person. However if the person is trying to deceive especially in the legal setup, it might not necessarily be true. For instance, some crime occurred and the person is a suspect of this crime, gives an alibi and say that he was at a party and he describes the party and the person gives a description which high on sensory perceptual processes- is that possible? It is possible. So the fact that he is using the party as an alibi is incorrect and is an act of lying and deception but the description of the party that he gives might be the description of a party that he actually has experienced at some other time. So in these cases where the person actually recalls an event which he has experienced but uses this event as an excuse or alibi where the lie is not directly connected to that description which the person is offering in that case reality monitoring is likely to fail.

Secondly, a repressed memory which is recovered at a later point would that be the same as sensory processes and would that fit into the domain of reality monitoring- YES, because even if a memory is repressed and was recovered at a later point but the memory was created on the basis of actual experience and therefore it is likely to be high on sensory and perceptual

Downloaded by moin khan (moinamb99@gmail.com)

processes. Ideally this should be the case but considering that when the memory in this case (repressed memory which is recovered at a later point) or when an individual is asked to recall an event which happened long time ago, then the constructive and the reconstructive processes are constantly at work to facilitate recall while at the time of storage or after the storage of the memory if a long time has elapsed, reconstructive processes would be at work and is also likely that reconstructive processes alter the memory which has been stored to facilitate retention of course and the alteration incorporated reasoning. So if these reconstructive processes actually change the memory in order to incorporate inferences and reasoning and therefore when an account of that event is produced, it will actually be high on reason and analysis rather than sensory information because over a period of time the memory has been altered in such a way to incorporate reasoning.

For instance, I hear a glass and I actually experienced it and went upstairs and store a memory that as soon as I entered the house the glass broke. But over a period of time I think about this memory and at a cognitive level tell myself that when I entered the room I did not know that it was the glass that broke but I heard a loud noise and so therefore the reconstructive process is at work where actually when I start recalling the memory, if enough time has lapsed, I am more likely to say that when I entered I heard a loud noise and it probably was the glass that broke. So if reconstructive processes are given time they are likely to alter the memory.

Also it happens the other way round, Considering that I have created a memory. If I am given enough time, I might imagine and over-imagine and keep planning about it and over a period of time again because I have rehearsed that memory so many times in my head that I am able to add details to that memory. So if long gap is given between the actual occurance of the event and interviewing an individual for it then it is possible that created memories might get a lot of perceptual sensory vivid information and memories which actually have been experienced might incorporate a lot of cognitive processes making it difficult to determine which process is a reflection of which process. So this reality monitoring as a technique is the most effectively used only when a lot of time has not elapsed between the commission of the crime and the interview.

Third drawback, this technique cannot be used with children because they are very good with fantasizing and imagining. Children cannot themselves, at a cognitive level, differentiate between fantasy and reality. Therefore their cognition and sensation are overlapped. From the perspective of psychological analysis it is used for the analysis of narratives of children as well but when we talk about whether a person is deceiving from a legal perspective, it is not used in cases where children are used as witnesses.

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

28/09/2019

Forensic Hypnosis as a technique is used as a therapeutic technique in psychology and predominantly till date that is the major area in which hypnosis is utilized. There have been a few cases where hypnosis has been utilized within a legal investigative setup as a tool for investigation and not exactly to detect deception per se but as a tool to enhance the memory of the witness or memory of the individual who is trying to recall a series of events that took place, essentially the crime. So, hypnosis is traditionally not a tool to detect deception but is used with witnesses who are willing and is used as a tool to aid recall of an event or simply used as a memory enhancement tool, to increase the efficacy of memory or if there are gaps or some bits and pieces of information which the individual is unable to recall then hypnosis can be used as a technique to revive those memories.

Hypnosis is grounded in typically psychoanalytical ideology which is Freudian school of thought but later on there was a neo-analytical movement (grounded in certain criticisms of Freudian ideology specifically the unconscious) and what followed is psychodynamic ideology by neo-Freudians or later Freudians had a lot to add to it. Initially hypnosis was used as a therapeutic technique by Freud under his school of thought of psychoanalysis. Hypnotic hyper amnesia or a way too enhanced memories or a way of remembering what had happened to an individual through the use of hypnosis was specifically termed as **hypnotic hyper amnesia** (**amnesia**-when you don't remember something, a missing memory or an elapsed memory). Hyper amnesia- to increase the recall of something. So no recall is amnesia and less recall with lapses in memory or vague, unclear memory is **hypo amnesia**. Hyper amnesia is increasing the recall or enhancing what has been recalled by the individual. So, hypnosis was used as a tool to induce hyper amnesia or to increase the recall.

Along with hypnosis, there were several other techniques that were used by Freud. Most of the basic key techniques used under psychoanalysis by Freud were directed towards enhancing the memories of the individual. These other techniques include-

FREE ASSOCIATION and was perhaps the first approach to an individual and it was nothing but where the individual was asked to simply sit on the couch or maybe lie down and just say whatever comes to mind. And in the process one thought would trigger another thought which is why termed as free association. Leading to an individual giving a lot of details about a lot of varied things, talking about a lot of varied aspects about oneself and specifically the aspects which are important to the self. The basic ideology behind free association that when an individual is asked to freely rant, whatever the individual will talk about or whatever comes to his mind, will be a key reflection on the personality of the individual and in turn the person will also because he is freely associating be able to recall a lot of events. So each thought offers a contextual cue for the recalling of some other element.

CONTEXT DEPENDENT MEMORY- The elements of the context of your surrounding aid in recall. Here the context is created by ideas and thoughts. So because an individual is recalling, the person is creating a set of ideas and thoughts which then would serve as important cues to facilitate recall.

Downloaded by moin khan (moinamb99@gmail.com)

FANTASY- Herein, again the person was made to sit and relax and vividly imagine events in a conscious state in contrast to hypnosis. And a person is given a lot of time to imagine an event and then begin recall. This imagination or fantasy would offer important cues to aid and facilitate recall. Visual cues which are aided and generated by the person to facilitate recall.

2 most important were technique of Free Association and Fantasy and the 3rd being Hypnosis. Hypnosis came in after free recall and fantasy. Also the use of other techniques used to aid recall was termed by Freud as Non-Hypnotic Hyper Amnesia. All of these techniques are to increase recall. The use of hypnosis would qualify to be hypnotic hyper amnesia and the use of all other techniques was classified under non-hypnotic hyper amnesia.

As far as the process of inducing hypnosis is concerned and hypnotizability of an individual is concerned, so the first question is- Can everybody be hypnotized? Or Are there people who do not let themselves to hypnosis and therefore they cannot be hypnotized. The simple answer to this is that yes, everybody can be hypnotized but like all other human traits hypnotisability is also a trait which is considered to be relatively stable and enduring. Meaning that once the trait is formed like most other human traits it would take a lot of time to alter. So if an individual has developed and inclination towards hypnotizability or if an individual is easily hypnotizable then the person will probably be easily hypnotizable throughout life and if at all there is a change, it would take a long time for the person to change as far as the trait is concerned. Hypnotizability then from that perspective becomes a reflector of the personality of the individual. Hypnotizability follows like most other traits, the typical Normal Probability Curve. If the hypnotizability of a large population is traced then there would be some people who would be very easily hypnotized and some other who would be very difficult to hypnotize but most of them would lie on an average normal range which typically means that most people are neither very easy nor very difficult hypnotize them. What specifically determines how effectively the person is hypnotized and how quickly the person is hypnotized, is the motivation of the person to get hypnotized?

So there are several factors which determine the extent to which the person is hypnotized and how easily the person is hypnotized. First one being the **motivation** itself. Typically it is not used as a tool to detect deception but to enhance the accuracy of recall. Because if somebody does not want to get hypnotized if in the case of legal investigative setup, if an individual refuses to get hypnotized then probably it won't be possible to hypnotize that person at all. So the motivation or the willingness of the person to get hypnotized to begin with is an important factor in determining whether the person can be hypnotized or not. That along with a certain amount of trust in who is hypnotizing that person. So, usually the studies tell that even when the person is willing to get hypnotized but does not trust the hypnotist, the person will probably show a high resistance in getting hypnotized. Willingness and motivation coupled with trust that has been established within the client-therapist relationship in a typical clinical setup is important.

What also plays a role is the **context** and the **mental condition** of the person. So the context within which the person is being hypnotized, by inference then in an investigative setup which in itself is slightly threatening and stressful, inducing hypnosis might be difficult. Along with context, the mental state- if suffering from some mental disorder then while inducing hypnosis

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

that also needs to be kept in mind, because the very mental condition of the person alters the hypnotizability of the person himself.

The **suggestibility** of the person plays a very important role. The extent to which a person is open and actually accepting to certain techniques of suggestibility would play an important role in determining the extent of hypnosis that can be induced on the person or rather say the ease with which the hypnosis can be induced which also inform the technique which is used to induce hypnosis. Usually in hypnosis we differentiate between 2 kinds of suggestion-

- PHYSICAL SUGGESTIONS- Somebody who is more responsive to physical sensations rather than emotional ideas. For instance, relying more on sounds or visuals in taking suggestions from anyone. By suggestions it means- the ability to think and be influenced by what the hypnotist is saying. Physically Suggestive Techniques- a statement during inducing hypnosis, like- 'You are walking down the steps in a narrow tunnel (it is a slow process and a guided process- sensory details mentioned), there are 10 steps, it is a dark narrow tunnel and when you reach after crossing the last step there is a door and you open the door and it opens with a thud' and that is how you enter into a deeper trance. There are sensory information which is being used to induce hypnosis in this case whereas sensory information about the tunnel being dark, you going down, there being a thud and with the thud you enter in a deeper trance.
- EMOTIONAL SUGGESTION- In emotionally suggestive individuals- they are usually the ones who have more vivid imaginations and can feel and develop a sense of feeling along with what they are trying to visualize. So for them a suggestion like- 'You are sitting in a garden, can feel the grass on your feet. It is soft, the wind is blowing on your face and you are feeling calm, relaxed and happy.' The focus in this case becomes- how the person is feeling- soft grass, cool breeze and feeling of calm and relax rather than the sounds (the thud). Then the kind of suggestive commands which are given to the individual vary depending upon the suggestibility of the person. They do not necessarily make a person more or less suggestive but simply the manner that is used to induce hypnosis varies from person to person depending upon the kind of suggestibility that the person has. So somebody who is extremely emotionally suggestive and has the ability to feel a lot very easily, then this person would be very easily hypnotizable on the basis of emotionally suggestive commands.

Would depend upon whether the person is physically suggestive or is emotionally suggestive.

There are variations in the techniques that are used to induce hypnosis and these techniques vary on the basis of 2 ideologies. So hypnosis can be induced either by-

- inducing extreme relaxation in a person or
- by inducing cognitive overload- cognitive overload wherein simply the cognitive resources of an individual are exhausted by making the individual engage in a lot of activities.

Ideology is simply this that there is a barrier which is guarding the unconscious and kind of dividing it from the conscious experience of the individual. So for instance you are currently

Downloaded by moin khan (moinamb99@gmail.com)

above the barrier and you are constantly functioning within the realm of conscious awareness and the purpose is to delve within the unconscious. How would this happen? This would happen if the barrier is weakened in some way. This barrier would be weakened either by relaxing the barrier and once the barrier is relaxed then it becomes weakened and is then easier to delve into the unconscious. That is what probably happens when you are sleeping. Freud said that dreams can be interpreted and dreams are symbolic of the content in the unconscious. So when you are sleeping, this barrier is relatively weak and there are certain condense in the unconscious which express themselves in the form of dreams but in a symbolic or a disguised way. So this barrier is weakened during sleep but along with that it can also be weakened by inducing relaxation in a person.

So the most basic technique of inducing hypnosis is by guided relaxation. Starting from the toes, your toes are relaxing, your muscles in the legs are relaxing, your abdomen feels relaxed, arms and fingers relaxing and all parts of the body are dealt with and gradually falling into a deep sleep. And this can be one of the way to induce hypnosis and thereby ensuring that the person enters a trance state.

The second way of inducing hypnosis where this second way is used in individuals who are high on control. Cognitive overload is a technique where the cognitive resources of the person is channelized into so many different things and ways and therefore cognitive resources available for maintain the barrier are depleted. And since the cognitive resources which are available to maintain the barrier are depleted, the barrier weakens and the person is able to enter unconscious or in a trance state or hypnotic state is induced. This can be done simply by engaging the individual into multiple activities. In a lot of fictional depictions- the ball is swung and the person is asked to follow the ball. This ball is simply a way of engaging the person into some activity and therefore engaging a part of the person's cognitive resources into that activity. Usually when this kind of a technique is used then along with the ball there would be a lot other techniques and things that the person would be doing. There can be a tick-tick sound that can be going on and the person is asked to listen and concentrate on to that sound. Also can be asked to focus on the tip of ones fingers and hold the fingers straight. This hand technique which is used in inducing hypnosis is a very commonly used technique. So the person is asked to spread the hand and focus on the tip of the fingers and the person is asked to hold the arm and the fingers perpendicular to the arm to the extent possible and focus on that. And gradually as hypnosis is induced the arm kind of folds and the hand kind of relaxes. This arm technique is a frequently used technique under hypnosis.

The process of holding the arm straight and the wrist perpendicular to the arm is something which requires cognitive resources and can be another way of exhausting the cognitive resources which are available and inducing load and thereby inducing hypnosis in the process.

A person comes out from the state of hypnosis through suggestions.

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

29/08/2019

There are 2 Predominant perspectives and these 2 look at hypnosis from 2 different very different perspectives.

1. **HYPNOTIC TRANCE THEORY-** The theory which is more grounded in the psychoanalytical perspective and it agrees with the psychoanalytical expression of phenomenon of hypnosis. This theory essentially posits that hypnosis is a special state of consciousness or rather the altered state of consciousness which is induced in a subject and in that state of consciousness while the subject is in this altered state of consciousness, the subject experiences very high levels of suggestibility and very high levels of awareness with respect to the surrounding of the subject. So the subject then regresses back to an early stage of life and that was the only kind of regression which initially hypnosis kind of propagated. The first kind of regression that hypnosis spoke is- ***Age Regression** which essentially means that a person regresses back or goes to the earlier stage of life and is able to recall events and happenings around that person at that stage.
   Essentially then the hypnotic Trance Theory stresses on the fact that in the process of hypnosis, once an individual is hypnotized, the person enters an altered stage of consciousness wherein the person has regressed back to an early stage and is able to experience the surrounding/environment from that earlier stage in a more vivid and clear manner and at the same time experiences high level of suggestibility which is why he is able to regress back (is able to take suggestions from the hypnotist).
   From this perspective then, age regression serves as a valuable recall of memory. Not just the experience of what happened but also there is scope to induce altered sensations. Meaning that since the individual is highly suggestible, there is also this scope that the hypnotist can induce high levels of sensitivity as far as the sensory functioning of the individual is concerned and with that the perception of something happening in the surrounding of the individual can further be enhanced. Example- it can be used as a tool to increase the visual perception of the individual with respect to certain elements which are present in the surroundings of the person or can be the auditory perception regarding the environment.
   Essentially saying that there is something which happened around the person at the time of commission of the crime. At that moment the person perhaps did not take active notice of something which happened but there was subliminal perception which took place which means that there is some piece of information which is entered in the cognition of the person without the person taking active cognitive notice of that information. Since the information nonetheless has become the part of the psyche of the individual, there is a memory but because the person has not actively processed that memory the person cannot actively recall or recollect the memory. In the process of hypnosis, once the person has delved into the earlier experience, the person can then also access those bits and pieces of information which were there which the person did not have active access to which had entered the psyche of the person but the person did not actively recollect those details. So, with the instructions or the suggestion of the hypnotist with respect to

Downloaded by moin khan (moinamb99@gmail.com)

the person hearing the conversation and focus on what is being discussed. With that kind of suggestion the person can actively focus on what is being discussed and recall the details of the conversation which he otherwise would not have been able to.
One of the chief proponents of this theory specifically with respect to accuracy and the process from the perspective of forensic psychology were- **Ernst Hilgard**

2. **COGNITIVE BEHAVIORAL PERSPECTIVE-** This clearly disagrees with the psychoanalytical perspective of hypnosis and says that hypnosis is not an altered state of consciousness, but is simply the game of expectations and motivations of the person with which he is coming into the therapeutic setting and along with this the attitude which the client carries with respect to hypnosis. It simply says that if an individual has a positive attitude towards hypnosis (that he actually believes in hypnosis), if he is motivated enough to get hypnotized (believing that it is going to benefit him or for fun) then the individual will get hypnotized and act in accordance with expectation that he had with respect to the process of hypnosis. This perspective calls for suggestibility and that suggestibility is nothing but the ability of an individual to think and behave according to the suggestion of the hypnotist and if the individual can think, focus all his attention and think about what the hypnotist is saying and act according to the hypnotist then the individual is behaving typically like one who is hypnotized. This perspective draws an analogy between the television and the movie during the behavior of an individual. Like sitting and crying along with the movie. Crying because there is an emotion which is expressed in a work of fiction and a conflict which is shown perhaps. But you feel that conflict to an extreme extent and that induces an emotional reaction and you express the emotion (this is the ability to think and act along with the work of fiction). And this perspective says that the process of hypnosis is very similar to that, instead of a work of fiction here there is a hypnotist who is sitting who administers the suggestions and the individual simply thinks along with him.
Martin Orwe, within the paradigm of cognitive behavioral perspective used the social contract theory to explain the process of hypnosis. (Social Contract Theory- basically it is assumed that we have submitted our individual, absolute rights to the government and we have sort of accepted the government as is). This is essentially what the perspective and the use of the social contract theory within the paradigm of hypnosis is saying that when an individual agrees to the process of hypnosis, he/she is essentially entering into an implicit social contract with the hypnotist wherein the individual agrees in turn to renounce his critical thinking. For that moment for the process of hypnosis the individual has implicitly agreed to renounce his critical thinking. And therefore from that perspective, hypnosis can simply be seen as a role playing mechanism where an individual is no longer engaging in critical thinking and is ready to renounce his sense of reality for a particular time and just be guided purely by the suggestions which are administered by the hypnotist. Thus individual is role playing in that hypnotic setup and is just acting the way he expects an individual who is hypnotized to act.
***What the individual gets as benefit? So, 'Trust' is very important for the process of hypnosis to take place and is one of the factors determining the efficiency of doing hypnosis. If the person believes that he will be benefitted with the session of**

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

hypnosis (believing because the hypnotist has told him so), there is enough trust on the hypnotist. Also, some people just get hypnosis done to gain an insight into their life.

This perspective uses the term- **'Trance Logic'**. Used to explain the reasoning process during the time of hypnosis. For that moment the individual develops a trance logic which is an altered kind of reasoning process and essentially that is a process when fantasy and reality kind of peacefully co-exist. So the individual is subtly aware of the environment (the reality) and at the same time the individual has also delved into this world of fantasy which is although very cognitive but not real.

Now from this perspective, the fundamental assumption, specifically when we are using hypnosis in the field of investigation to increase the accuracy of recall is, that human beings are taking memories and they store memories very accurately. It is just that we do not have access to these accurate memories and therefore we cannot remember or recall. So, through the process of hypnosis we will simply gain access to these accurate memories and that in turn will increase the effectiveness of recall or memory in the individual.

Now from the cognitive behavioral perspective this logic in itself is flawed. Because to begin with, in the context of memory, we acknowledge the fact that the storage of memory is a dynamic process and the cognitive psychology acknowledges and stresses the fact that human memory in itself is distorted and is susceptible to inaccuracies which are influenced by a lot of factors. First of all the assumption that the memory stored is accurate is a flawed assumption because the memory even if it is stored and even if we do not have access to it, the memory in itself probably is inaccurate and distorted because of several factors.

Added to that, considering that the process of hypnosis is a process of inducing a high level of suggestibility, added to that, the memory which is already stored can be distorted and further be made inaccurate by certain suggestions which the therapist himself is administering and that essentially is a very ideal environment to lead to an increase in the inaccuracy of memory. So, the cognitive theorists predominantly discourage the use of hypnosis, esp. when the accuracy of memory is in question. Because they are saying that memory is in itself can be flawed and distorted and because of the high level of suggestibility which hypnosis induces that leads to a further scope of potentially distorting the memory which might further lead to inaccuracy introduced in the memory.

Downloaded by moin khan (moinamb99@gmail.com)

30/09/2019

CRITICAL EVALUATION OF FORENSIC HYPNOSIS

Essentially the reliability and validity of hypnosis as a tool to enhance memory and increase the accuracy of memory specifically has been researched from the perspective of 3 domains and those domains are to do with-

- **The accuracy of recall**- So, does hypnosis actually increase the accuracy of recall. This specifically why hypnosis is conducted in an investigative and forensic setup. Most research in fact does not support the fact that hypnosis leads to a high level of accuracy in the recall of an individual. Most research says that if at all there is an increase in the accuracy, usually the accuracy rates are pretty marginal. There is at best a very marginal increase in the accuracy of recall of the individual during a hypnotic session. However barring the specific accuracy the memory concerned, there are other domains in which hypnosis is useful, specifically when the investigative process is at use. Hypnosis is seen to increase the accuracy rates in the recall of specific groups of subjects or specific kinds of witnesses. When the witness is extremely stressed out or worried and tensed or if the individual is very fearful of something and the investigative process itself can induce high levels of stress and fear in an individual, even guilt that he should have not committed that crime, so these high levels of emotions in the case can lead to a fuzzy and a weak recall which can affect the person's memory. And in these sets of individual then specifically, hypnosis then is a very effective tool in sort of calming down this individuals, increasing the focus and concentration of these individuals and in turn resulting in memories which are more accurate as compared to state when the individual is experiencing high levels of emotions and gives a recall. So in these individuals hypnosis does lead to an increased accuracy of recall by way of calming down or mellowing the high levels of emotions which the individual is experiencing.

  Also forensic hypnosis is very useful in cases of trauma or when an individual is suffering from some *mental condition*. Cases like- amnesia, selective amnesia specifically- a victim has experienced trauma and as a result of that trauma the victim has forgotten certain bits and pieces of the memory then in order to ensure a more coherent picture and a more complete picture of the set of events, hypnosis can be induced and in turn has found to be very useful in these cases.

  Also considering the *cases of recovered memory*- almost in most of the cases, memories have been recovered during the process of therapy. Even when they have been recovered otherwise, eventually there is a therapist who is involved to confirm in a way the accuracy of these recovered memories.

  The third bit is that it does not necessarily have to do with the accuracy of memories but the amount of recall. So, hypnosis certainly does increase the amount of recall of the individual meaning that even if the recalled information is not accurate there is certainly much more details which the individual might is presenting to the investigating agency. These details or the additional facts which the individual can now remember, can offer effective leads for the investigating agency to begin the investigation on.

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

- **The amount of confidence**- which the process of hypnosis instills in the witness with respect to the accuracy of recall. So the confidence level of the witness post the hypnotic session with respect to the memory or recall. Hypnosis definitely has this ability to induce very high levels of confidence in an individual with respect to what he has recalled. During hypnosis (if it is induced accurately and to the right depth then) the memory or the recollection of the experience which the individual has during hypnosis, it is usually very clear and vivid. So hypnosis has a very high ability to induce high levels of confidence in the witness or the individual with respect to what he and she has recalled. Nonetheless accuracy might not be that much. So the levels of confidence are no co-related with accuracy of recall. An individual might be very confident about what he says but it does not necessarily imply that what he says is actually true and thus one needs to practice precaution there. Therefore, here further investigation and generating collaborative evidence becomes very important.

  Hypnosis also leads to, since there is high levels of confidence and in case the memory recalled is inaccurate because there is such high level of confidence, a permanent cementing of that fake memory and end up believing very confidently that what he experienced during hypnosis is actually true.

  Post- Hypnosis if an individual has recalled something which is not true and the person is asked to explain that phenomenon the post hypnosis confabulation has also been reported by research. Meaning that in order to explain a certain memory or certain bit of information, individuals actually come up with fake explanations or come up with fake filling in the blanks which is very automatic as far as cognition is concerned. So at a certain level they do not even realize- they are not actively faking but it is almost an automatic process of confabulation where they actually start believing that those explanations are true resulting from high levels of confidence which the individuals have in the memory that he has recalled.
- **Suggestibility**- To what extent is the individual prone to suggestions which in turn is likely to lead to inaccuracies in memory. High levels of suggestibility and the extent of suggestibility in an individual which then is likely to lead to inaccuracy in the recall of the memory which the witness has recollected under the process of hypnosis. Hypnosis can be understood as nothing but a high state of suggestibility where the individual is induced who can take suggestions from the hypnotist. Suggestion like, if the hypnotist says that you are now delving into a deep trance then the person actually takes that suggestion. Meaning that hypnosis is actually extremely susceptible to inaccuracies which can creep in because of the suggestibility of the individual. And this suggestibility can come from any leading or directing questions which the hypnotist himself is asking. Question or statement like- 'You must be feeling really afraid?' Now this kind of a question can actually be a suggestive statement to the individual where the person starts feeling afraid even when he was not feeling as afraid. In that case the person will start reporting that he was feeling afraid.

  Even very subtle indications or subtle gestures of the hypnotist can make him susceptible and lead to cementing of fake memories. So if the person says something and the hypnotist strongly agrees to it, then that memory is likely to strengthen even more in the

Downloaded by moin khan (moinamb99@gmail.com)

person because this person is strongly taking suggestions from the hypnotist and the hypnotist agreeing with person clearly tells that this must be very true.
Along with that, individuals are also extremely prone to any extreme happenings in the environment. For instance, an individual who is hypnotized and who I recalling a scene that happened at a previous time specifically of a crime and there is a loud sound that takes place in the environment of the individual or the room in which he is the window there breaks, considering how that is a loud enough sound to evoke the attention of the person. That sound might be perceived as coming from within the set up which he is actually experiencing. And the person then in turn might recall that there was a loud sound or the window broke while the crime was taking place. Also any loud sound which is similar to a gun-shot the person might interpret a similar loud sound as a gun-shot and come up and create a memory which essentially says that there was a gun shot at the crime scene, where actually there might have been no gun-shot. Any stark loud or extreme changes in the environment which manage to evoke the attention can also lead to a fake memory, a memory which is woven into the experience which the individual is having at the moment. One then needs to be very careful about the place where hypnosis is taking place and ensure no distractions per se.

LEGAL STATUS OF FORENSIC HYPNOSIS AND ACCEPTANCE WITHIN THE COURTS

The first case where the evidence generated from forensic hypnosis was used in the court of law-

- ***HARDING V. STATE (1968)***

  This was a case of sexual assault in a state hospital and these were memories of the victim and the memories of the victim were enhanced through the use of hypnosis of the sexual assault incident. In this case the court openly admitted the evidence which was based on forensic hypnosis and therefore the court followed the criteria known as- **'Open Admissibility Criteria'**, meaning the evidence that is generated through forensic hypnosis will be admitted in a court of law. The first and the only case where open admissibility criteria was followed.

  In all other cases following them, for a very long time the criteria of **'Per Se Exclusion**' was followed. Post 1968 in most cases in the US the per se exclusion criteria was followed which came to the forefront where there was a debate that was initiated with respect to the potential fake memories which can come up as a result of hypnosis, the debate around the accuracy of memory and specifically high levels of suggestibility and also the fact where in a lot of cases in a therapeutic setting because of the suggestion of the therapist a lot of cases of sexual assault were being brought up where there actually was no sexual assault but because of the suggestion of the therapist like a condition like this is usually because of some sexual assault during childhood led to people recalling sexual assault during childhood. There was very little way of proving or disproving it because it happened in a private set up and there were no witnesses and thus became controversial not only in legal psychology but also in therapeutic psychology. Eventually

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

led to, the courts simply rejecting the evidence based on hypnosis as admissible evidence and therefore 'per se exclusion criteria' was followed.

In **'per se exclusion**' criteria, if an evidence was a result of hypnosis then that evidence would be rejected from a court of law and considered inadmissible. Nonetheless this criteria was reversed and rather moderated in-

- ***ROCK V. ARKANSAS (1986)***

Almost 20 years later the above case, the criteria was moderated. In the case, th court took note of the fact that a complete rejection of the statements (taken in the state of hypnosis) of the victim would lead to an unfair trial. Violated the right of the defendant to a fair trial. And in the light of the fact that every victim has the right to a fair trial, the court then brought into light the criteria which is followed in a lot of cases which is the **'Totality of Circumstances Criteria'-** essentially the evidence which is generated out of forensic hypnosis can be considered as one evidence and does not have to have an overpowering effect. Can be considered as one piece of evidence amidst an entire plethora of evidence which is presented in a court of law. It is upon the court to decide on a case by case basis depending upon the situation keeping the facts of the specific case in mind whether the evidence gained through the process of hypnosis is admissible in the court of law or not. The totality of circumstances criteria was followed for a very long time and is still being followed in the US.

In 1995 there was an interesting debate around this criteria or the admissibility of the evidence based on forensic hypnosis and

- ***BORAWICK V. SHAY (1995)***

this was a case of recovered memories wherein the victim during a therapy session had recovered a memory of sexual assault by her uncle and aunt while she was on vacation which was so far repressed. The lower court had rejected this piece of evidence as a basis of legal investigation. The argument which the plaintiff had ordered was that in this case the memories were recovered through hypnosis. But through hypnosis as part of therapeutic process and not an investigative process and because hypnosis is considered to be a scientific and valid technique within the field of psychology and psychotherapy and therefore any memory recovered through the process of hypnosis should be considered a valid ground for legal proceedings. So there was no debate as it was not part of an investigative process but a therapeutic process and thus the memory shall be admissible in the court and to be a valid ground to initiate legal proceedings. But lower court had rejected it.

The lower court stated several reasons for this rejection and said that the memories recovered through hypnosis can be considered as valid ground for legal proceedings and admissible in a court of law if certain conditions were met. Conditions being-

-that an individual performing the hypnosis should be qualified enough and certified to perform hypnosis

-the hypnotist should not add any information to the memory of the individual, a guard against suggestibility

-there should be a permanent record of the procedure which is followed during the process of hypnosis

Downloaded by moin khan (moinamb99@gmail.com)

-there should be other evidence to corroborate the hypnotically enhanced memory.

Basis these grounds, the evidence was found inadmissible and specifically one of the reasons was that there was no recording of the procedure of hypnosis that was considered. During one of the hypnotic sessions the person recalled this memory, there was no recording of that hypnotic session or any permanent record that was kept. Also considering that this criteria may not be met in a lot of cases, wherein a lot of cases the recording of sessions is at the discretion of the therapist. When a memory pops up cannot be predicted and therefore recording of that cannot be pre-planned.

Also what is specifically considered an addition to the memory of the individual is also quite a vague criteria because again in the process of hypnosis, the hypnotist is guiding the individual and making statements, statements which can be considered suggestive by certain courts? So what is considered suggestive and what is not considered suggestive or adding additional information is something that is totally an open criteria and there is no specific guideline of criteria which defines that. A vague criteria and open to interpretation.

Last criteria is the presence of- **'Corroborative Evidence'.** Corroborative evidence is usually missing in most cases and an incident which happened years ago is recalled by the person and usually in cases of sexual abuse, child sexual abuse- private cases where there is no evidence. Then generating corroborative evidence might fairly be a difficult task. This verdict was appealed against and the appellate court took note of all of these restrictions and mentioned that all of these conditions are important and desired conditions but should not be restrictive conditions. Because the conditions within themselves are rigid and restrictive and therefore they are desired but should not be mandatory conditions. In turn the appellate court allowed for the admissibility of the evidence and the court again supported the open admissibility criteria. Since then the criteria that has been followed in the US is the totality of circumstances criteria with respect to hypnotically enhanced memories or admissibility of evidence which is generated through forensic hypnosis.

04/09/2019

There are Aided and Non- aided techniques. Non-Aided Techniques which are basically used at training humans to be able to detect deception but human ability despite extensive training is susceptible and prone to inaccuracies and with that fact in mind a lot of technological aides have been created to assist in the detection of deception.

AIDED TECHNIQUES

The one most important and widely used technique is the **Polygraph Test** in order to detect deception. Along with this there are several minor techniques which are focused at very specific behavior patterns (focusing only on ones that are important from psychological perspective where the human psyche is involved).

POLYGRAPH TEST- Is one of the first tests that was brought to the forefront in order to aid human detection of deception. The test although is called the lie detector test but it is not meant to detect lies. Meaning that it does not give statements with regards to whether a person is lying

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

or not. What it does measure is simply the human physiological response to stress. This test is designed to measure the physiological activity of humans and specifically the physiological response of humans to stress and stress related aspects like- anxiety, fear, guilt and the like and other negative emotional response of the human body. All of this put together is called the- **'Gross Physiological Activity' (GPA).** The polygraph is measuring the GPA of the body rather than lies per se. Polygraph is a grouping of several final tests which together measure the GPA of the body and this GPA has elements which are relevant for stress reaction of the body. Certain very basic stress reactions of the body are- increased heart rate, increased respiration rate, increased blood pressure, sweating or skin conductance. These 4-5 tests are the most basic tests which almost always are used as part of the polygraph test.

Initially, when the polygraph test was introduced it was just the measurement of these. Today with the advent of technology we have computerized polygraph test which also in addition to all of this data also gives a probability statement about the likelihood of deceit or lying. But these are just probability statements and just taken as an indicative of lying or deceit but do not offer any conclusive statement with regards to whether a person is lying or not.

The first use of the physiological activity of the body to detect lies was done by- **Cesare Lombroso,** an Italian anthropologist and in terms of psychology has done a lot of work in Criminal Psychology. He was the first one to use physiological activity of the body in order to detect deception and lying and specifically he used blood volume of an individual. He linked the blood volume to lying and said that whenever an individual lies the blood volume tends to increase. That is at best partially true but is not a direct indicator of lying. Although when we said that there is a positive co-relation between blood volume and lying that was accurate but measuring blood volume is not a easy task. So later from blood volume we switched to the idea of blood pressure of an individual being associated with lying. The first one to come up with this conclusion was- **William Marston,** the first person to use the 'monograph' (monograph is one which is blood pressure and specifically systolic blood pressure related to lying), and his testimony was also used in the case of *US V. FRYE* 1917. But this testimony wasn't really admitted in the court of law. But from then, now we have the polygraph test, which uses not one but multiple indicators of the physiological activity of an individual or the GPA. One of the most important work in this case has been done by **Larson and Keeler in 1920s** in the polygraph test and integrated several indicators of GPA of an individual to come up with polygraphic test as we know it today.

Looking at the administration of the polygraph test, there are lot of variations but specifically broadly there are 4 stages that are followed while conducting this test-

1. **DATA COLLECTION-** Is a brief small stage which is focused at collecting some basic information about the person concerned. The protocol demands that when the test is administered, the background information is collected again (as part of larger investigation the agency already know of the basic background of the person) because then that is a one on one interview between the one who is conducting the test and the person who is giving the test. Basic background information about the person usually demographic information. If there is some info with respect to the crime which the

Downloaded by moin khan (moinamb99@gmail.com)

administrator feels that it needs to be collected then that also is collected at this stage. But most of this information, it is ensured that it is neutral in nature and not anxiety provoking or perceived to be threatening by the individual because if that is done then right at the data collection there will be peaks in the physiological response of the person which is extremely undesirable because prior to administration of test of the use of techniques, a baseline needs to be established. Also legally there is another important mandate- the 'consent of the person'. Taking consent of the person at this stage is considered to be extremely important and usually is a mandate because if the person is not willing to give a polygraphic test then the readings that we would get as the result of test itself are likely to be highly inaccurate. To begin with, the assumption is that the person is willing to give the test in order to get the readings and interpret and assume that the readings are accurate in nature.

2. **PRE-TEST INTERVIEWING-** Out of the 4 stages the, this and the third one are 2 most important stages to get accurate test results. This is aimed at establishing rapport. Rapport formation is usually done at this stage and that is done with the goal of ensuring that the person has acclimatized with the surrounding, is comfortable with the environment of the polygraph because if the person is discomforted because of some elements in the environment then that in turn will affect the physiological response of the person. Also to ensure that the conversation is smooth between the administrator and the person. Rapport formation from the perspective of comfort with respect to the conversation and with respect to the environment or acclimatization is extremely important.
   The second important element is- the briefing with respect to the polygraph itself. The basic ethics demand that the person should know and should be told what procedure is to be administered on him. To brief about what the polygraph test is, what is the end question which needs to be answered here, the purpose of conducting the test, what is the amount of time that the procedure will take, in order to make the person settle with respect to what is going to happen next in the process!
   The third element after rapport formation and briefing is the setting of a baseline which maybe done at this stage ore done at a later stage. So this not a mandate and depends on the procedure and on the comfort of the administrator. The person is also exposed to the equipment which the person will be working with. The person is shown the functioning of the equipment at this stage. Most importantly and why this stage becomes most important is that at this stage the administrator also makes an attempt to persuade the individual and make him believe that the polygraph is actually a very powerful technique and this will actually work.
   Interestingly, polygraphy is a very controversial technique and most people, not just legal practitioners but also psychologists right outly reject the use of polygraph but invariably all researchers and all academicians agree that one of the reasons why polygraph works when it does work is because the person actually believes that the polygraph works and the belief makes him generate responses which are in line with the polygraphic test. Convincing the person of the power of polygraph can be done by suggestive techniques. Indirect suggestions where people talk about the fact that the polygraph is extremely effective or very direct techniques which are used in manipulating the belief systems of

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

the person. Considering, where the administrator tells the person that he will give an insight into how a polygraph works and asks him certain questions and asks him to lie about them. Now these questions could be aspects which the administrator already has about. When the person lies, the administrator himself manipulates the reading which are being displayed on the screen and says that when you lie this is what happens. This is done to persuade the person that the machine can actually register when a person is lying. It could be a technique which is used multiple times. For instance there is a deck of cards from which the person is asked to pick one card but the deck of cards has all the same cards. So the administrator knows what card it is and in turn the administrator says that he is going to give multiple guesses- you either lie about that or do not lie about that by responding in terms of yes or no. So because the already knows what card it is, so again depending upon the response of the person the administrator actually manipulates the readings which the machine is showing in turn trying to convince the person that it is the polygraph which is actually at work. Using such manipulative techniques is very common.

Psychological research which tells us that the belief systems of the individual are extremely important in determining the success of the polygraph has actually triggered the use of a lot of these manipulative strategies.

3. **TEST ADMINISTRATION (actual conduction of polygraphic test)-** There are multiple techniques which are used in a polygraph test but 3 techniques to be focused upon. One of which is the most initial or earliest techniques and 2 techniques, one of which is very robust technique of conducting the polygraph and the other one is the most frequently used to conduct the polygraph.

First technique- RELEVANT-IRRELEVANT TECHNIQUE- one of the first technique that was used in the area of polygraph. In this technique there are 2 kinds of questions which are used. One set of questions which are relevant to the crime scene and the second set pf questions which are irrelevant to the crime at hand. They (irrelevant questions) are absolutely neutral questions, could be a question as simple as "is it Tuesday'. They are absolutely unrelated to the crime and they could be just about anything. The underlying assumption behind this technique is that an individual will give a stress response to the relevant questions and the stress response will be lower or will not exist if an individual is otherwise calm and the rapport information has worked effectively then the stress response that the individual has to irrelevant questions will be non-existent so there would be no stress response to irrelevant questions. So every time when a relevant question is asked, could be anything related to the crime scene- what weapon was used to conduct the crime, where was the crime committed, where was the body found, who was the victim. When the individual hears these questions irrespective of the responses that the person gives, a criminal would probably lie to a response like that probably with a lie which simply denies the knowledge or would give incorrect information, irrespective of that the person who actually committed the crime would give a peak physiological response to a relevant question because the person knows that the investigators have this information that I might be caught or simply the fear of being caught. So high GPA to relevant questions vs. a lower GPA to irrelevant questions and that essentially if it happens it warrants a conclusion that the person is trying to lie or deceit. On the other hand if an individual is innocent, he has no knowledge of the crime. To

Downloaded by moin khan (moinamb99@gmail.com)

begin with, perhaps he won't be able to understand which questions are relevant because he does not know what transpired. And therefore the stress response is likely to be much lower and there probably won't be much difference between the stress response of the person with respect to the relevant and the irrelevant questions.

The problem with this assumption, the major drawback is that even a normal person would stress out when he is asked about a crime. An innocent person, to begin with, would be stressed out and anxious because of the high risk and anxiety provoking situation, and then when he is asked about the crime per se then even this normal individual would give a high GPA response. Also coupled with that if the questions are not well constructed which means that a lot of questions can be emotionally laden and those emotionally laden question will again trigger stress responses in an individual. Use of terms like- murder, weapon, knife all of these terms in themselves are emotionally laden. Hearing these terms in itself might induce a peak in the physiological activity of an individual and therefore this might mask any real differences between the individuals who are trying to lie and the individuals who are innocent and who are being truthful.

As a recognition of this drawback a slight modification of the irrelevant technique was then used, which was called the **RELEVANT-RELEVANT TECHNIQUE.** Herein the irrelevant questions are fewer and the relevant questions are more in number. They are clustered together in terms of certain areas related to the crime. So there are these content categories which are created and questions for example with respect to like, if there is a robbery how did the break in happen. So the questions with respect to breaking in would be clustered together. Questions with respect to what actually was stolen how was the robbery actually committed, these would be clustered together. If along with that there was a murder then those questions would be clustered together. Questions with respect to how did the person then escape the crime scene, would be clustered together. These clusters of question would be interspersed or divided by irrelevant questions. Which basically are targeted to get the person back to the base line or relax the person after emotionally laden questions have been asked or after peak physiological activity has been touched during the content category. Now what is done in this technique is that the physiological activity of the person across content categories is completely is compared and if there is a significant increase in one particular content category or one set of content category then that is interpreted as the person for some reason being extremely sensitive to that content category. And then that can be the basis for further probe. If it is polygraph then that cab be the basis of building up further questions. For instance building up questions for the latter half of the polygraph test or if the investigation is continuing then investigating with respect to that content category because that content category provoked the person a little more and elicited a greater stress response in the person and therefore perhaps the person is in possession of some knowledge which is resulting in those stress reactions from the person. It is not very directly implicative of whether the person is trying to lie or not but basically just implicative of how the person's body is reacting to certain aspects associated with the crime. Again, if the person does not show much fluctuation or much variation to the relevant questions then the person is considered to be innocent and esp. if the fluctuation is not much in relation to the irrelevant questions. This technique has been known to find greater value and utility as compared to the traditional relevant-irrelevant technique.

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

The second set of techniques is the **CONTROL QUESTION TEST**. It is one of the most frequently used polygraphic technique specifically in the west (US and Canada). But as far as support for its accuracy is concerned it does not find as much support for its accuracy as compared to the 3rd test (though it has some practical implementing problems). It simply introduces a third category of question which are the control questions (first being the irrelevant questions- could be anything and the second being relevant- associated with the crime), are based either on known lies or assumed lies. They are based on the assumption that there are some bits and pieces of information which an individual (specifically if he is a suspect), will not want to share it with the investigators because the person feels that this might lead to a moral judgment or character judgment by the investigative agencies and therefore disclosing those bits of information might make his case weaker or might lead to the investigative agencies further suspect him simply because he looks like somebody who can commit a crime like that if it is the profile of somebody who can commit a crime like that. *Known Lies* are basic factual information about the person which are known to be true. So if it is known that the person beats his wife, a question like- 'do you beat your wife or do you engage in domestic violence?' and the person will probably deny it because if he has committed some crime then it might lead the investigative agencies to further believe that he is somebody who can commit a crime because he engages in domestic violence. An *Assumed Lie* is basically the kind of information which most people every now and then might engage in, the kind of behaviors which most people might engage in but would deny if they are a suspect. And these could be questions with regards to- 'have you ever betrayed someone who trusted you?' An admission of guilt in this case would lead to the investigator believing that this person is a betrayer and therefore can commit a crime. 'Have you ever lied to your family or loved ones' again admitting to that would lead the investigator in believing that the person lies and therefore he can commit a crime. 'Have you ever thought of hurting someone in order to take revenge?' these are based on an assumed lie.

***** *The person feels that to be on the safer side I should deny it. The polygraph is not even grounded on the actual verbal responses of the person, it is grounded in the physiological activity of the person and secondly polygraph is a comparative measure so it is comparing the physiological activity of the person. Research tells that individuals who are actually trying to lie give a higher physiological response to relevant questions as compared to control questions. So a person who is lying is probably lying to both the questions (relevant and controlled). But usually in these people who are lying their physiological activity in response to relevant questions is higher as compared to their physiological activity as compared to the control questions.*

If the relationship is reversed then this warrants a conclusion of innocence which means that innocent individuals usually show a GPA which is lower to relevant questions as compared to the controlled questions. The GPA (relevant and controlled) in both cases is usually higher than the irrelevant questions because irrelevant questions by their very nature are absolutely neutral in nature therefore the GPA to irrelevant question is the least and is closer to the baseline response of the person. The GPA response to the relevant and controlled questions is compared and if the GPA to the relevant questions is greater for the controlled questions then that warrants an inference of guilt or deceit where one of the most basic reason is simply is that individuals who

Downloaded by moin khan (moinamb99@gmail.com)

have actually committed the crime are usually denying guilt and lying in response to both of these questions but they are aware of which questions are extremely relevant to the crime, aware of which question can lead to a conclusion to guilt and therefore it gives a higher physiological stress reaction in response to the relevant question. On the other hand, individuals who are innocent they probably might be lying to control questions because they also feel that if they admit to deceiving someone and if admit to thoughts of hurting someone then that might lead the investigators to believe that he can commit the crime. So research thus tells that a lot of innocent subjects also lie to the controlled question. Then in that case the GPA of individual would be greater to controlled questions as compared to the relevant questions because they are telling the truth in response to the relevant questions.

The second aspect is that even when a person is not lying or telling the truth to controlled question, innocent people in most cases do not actively register or cognitively appraise the relevance of the question and therefore the relevant questions do not provoke as much response in an individual especially if they are constructed well and are not emotionally laden. Do not evoke as much response in innocent individuals because they do not see those questions as being extremely relevant to the crime. In that case the controlled questions for them are more relevant, they generate more anxiety as compared to the relevant questions because they do not know how the crime transpired therefore they cannot appraise the relevance of the question which is asked. Therefor greater physiological activity in response to controlled questions as compared to the relevant questions.

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

05/09/2019

The major limitation of the Control Question Test is the ability of the individual to come up with enough control questions to construct the test. And framing those questions in the right way in order to trigger a guilt, a denial statement from the individual. To target that to a certain extent, a slight variation of the traditional control test is used which is called the **'DIRECT LIE TEST'.**

This test is exactly the same, except that researchers over a period of time through research and also experiences from actual field of studies, have come up with a set of standardized control questions and through research on these standardized control questions suggest that most individuals tend to deny these questions. These questions tend to be very specific in nature and it is essentially the specificity of the question which elicits a denial response from the individuals. So, these questions are basic but very specific like- 'Before the age of 27 I never hurt anyone.' So, in a situation like that where the individual had to give a quick responses and the primary response orientation of the individual is to deny any negative behavior on his part, in that kind of a situation the individual tends to deny a question like that.

The third and the final technique is the- **'GUILTY KNOWLEDGE TECHNIQUE'.** A lot of work in the area has been done by **David Lykken** and this technique is also one of the oldest techniques in the chronological advancement of the polygraphic test. Also research tells that by far it is the most sound and the most robust technique as far as all the polygraphic techniques are concerned. Though being the most supported technique still the control question test is the most widely used, the reason being that there are greater practical problems in implementing the guilty knowledge technique. As the name suggests it is not a lie detection technique per se but rests on an analysis or understanding of whether the person who is being interviewed is aware of certain facts about the crime that took place which only perpetrator is likely to know. Therefore in turn it capitalizes on a lot of publicly unknown information about a particular crime or information which people in general do not know but only the perpetrator will know and only the investigative agency would know. This again has a series of questions about certain information about facts and occurrences at the crime scene. And in this case MCQs are used. The logic is that irrespective of what response the suspect gives, if the individual recognizes, that fact or the occurrence which is being asked about and is listed as part of the MCQ, then the individual's body will give out a stress reaction which can then be tapped by the technology which is being used to tap GPA of the person. A question like- 'The perpetrator left behind a weapon, what was the color of that weapon? Or the perpetrator left behind an important belonging of his at the crime scene, what was that belonging?' then there are 3-4 responses given to that. The logic is that when the individual sees those 4 responses even if he is giving out the wrong response, he knows what weapon he has left behind and in turn he knows that the investigative agency is aware of the weapon that was left behind. That recognition would then put the body in a stressful and anxious condition which in turn will result in the body giving out stress reaction and therefore a peak in GPA of the body.

This kind of technique is known to be extremely effective and research tells that when a suspect is innocent then accuracy rates of this technique have gone up to as high as 94%. It has an accuracy rate of about 84% in locating guilty suspects. But there is a problem with the

Downloaded by moin khan (moinamb99@gmail.com)

implementation and this problem arises because usually it is very difficult to locate enough number of facts or occurrences about the crime scene which are publicly unknown. Since this technique is based on only questions about information which are publicly unknown then that means that there has to be a lot of instances which the investigative agencies actually are aware of in order to be able to construct enough questions to qualify for the test.

4. **POST TEST INTERVIEWING (debrief which the person gets after the polygraph has been conducted)**

COUNTER MEASURES- How can a person cheat a polygraphic test. The polygraphic test is based on an increased physiological activity when the person is trying to lie and a relatively lower or normalized physiological activity when the person is telling the truth. In this case the polygraphic test can be cheated basically in 2 ways. Either **the person trains himself to increase his physiological activity in general and this increase will mask all difference between an honest baseline and the peaked physiological activity when the person is lying** or Second way in which it can be done is **by decreasing the physiological activity even to questions when the person is lying or even to questions which are targeted to increase the GPA of the person.** Now it can be done in multiple ways-

Individual can use drugs and tranquilizers to do that, there can be a physical measure, mind training or mental activity. The most basic is **physical methods-** wherein anything that can be used to hurt you. So, a person might put a nail in the shoe and press his toe against the nail and when the nail pierces the skin there is a pain reaction in the body and this pain reaction is similar to stress reaction. And thus even the baselines would give higher physiological activity. Basically hurt yourself and the body is going to enter in a stress situation.

Second method is the **mental technique-** the safest technique. They cannot be detected by any external aides. But there is a lot more training which is required to successfully execute a mental technique. Most of them are targeted at decreasing the GPA and one of the most basic ways of doing that is simply relaxation training. So if one can over a period of time train oneself to relax then even in a stressful situation the stress reaction of the person will be extremely controlled. Also the person can learn over a period of time how to increase the GPA and that can be done by vividly practicing visualization of extremely stressful, traumatic and anxiety provoking situation and that works even better if the person has actually experienced that trauma or anxiety. To successfully execute the mental techniques, there is greater amount of training that is used. Usually a lot of individuals who are professionally trained in that use techniques based on bio feedback- In case of relaxation training, the normal temperature of body is taken (skin temperature) by attaching the thermometer to the skin and then the person is asked to breathe in and out and progressively relax and that should translate into a decrease in body temperature of the person. With training the person learns to associate bodily sensations of relaxation with the temperature feedback that the person is giving and then he knows that he needs to relax and he knows what the body feels like when the temperature is down.

Drugs- Drugs like tranquilizers, anti- anxiety medication and also alcohol can be used to relax the body but the threat with medication or drugs is that a lot of category of drugs are detectable.

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

So the blood test of the person will show that he has actually consumed drugs. There are also set of studies which tells that when individuals were intoxicated at the time of commission of crime then they are more likely to escape the polygraph because it is the direct outcome of state dependent memory which means that what you do while you were drunk you won't remember it when you are sober again because cues associated with the state of the body act as an important retrieval cues. Similarly when an act of crime is committed under mild intoxication is recalled by the person when the person is sober then it does not generate as much anxiety and stress because the memory might not be very clear even if it is there, it won't be perceived as anxiety provoking as the actual commission of the crime. Then in these cases the people are able to escape or cheat the polygraph. In psychology there is another technique which is called hypnosis or self-hypnosis which is similar to progressive relaxation.

Overall research tells that in order to cheat the polygraph successfully by the use of counter measures usually it requires a high level of training, specifically when you are using mental techniques but all other techniques have their drawbacks. So even if you are training yourself to cheat the polygraph physically you still might not be successful if you do not have a lot of training. So very few individuals are able to successfully cheat the polygraph using counter measures. This essentially is not so much of a concern as far as the accuracy of polygraph is concerned. The greater concern is to do with the administration of the polygraph, the specific techniques itself and the validity and the reliability of the techniques which are used itself. So if those are used in a sound manner then the effectiveness is likely to be way more.

06/09/2019

LEGAL ASPECTS (POLYGRAPH TEST)

If we look at the trends in the approach of the legal fraternity towards polygraphy esp. in the context of case laws we would find the 5 specific stands. These case laws are relevant not only from the context of polygraph per se but also in the context of all expert testimony. These verdicts are relevant for the testimony of the experts based on the scientific evidence in general rather than just the polygraph.

The first testimony of its sort which was an expert testimony based on the polygraph test was done by- **William Marston.** The testimony was in the context of the case of *US V FRY 1923.* In this case the court rejected the expert testimony which was on the basis of a polygraph test and in this context the court came up with a standard of admissibility of expert testimony on the basis of some scientific evidence. This standard came to be known as THE FRYE TEST or THE GENERAL ACCEPTANCE TEST. The court specifically said that for any evidence to be acceptable in a court of law, this evidence/method of scientific analysis should be considered to be reliable within the relevant scientific community, it should be established in its relevant field. Only scientific techniques/methodologies which are seen as reliable by several members of the scientific community will be accepted in the court of law. This case and the opinion came in 1920s which is when the polygraph was in its raw form. Up until then it was a widely debated technique and still is but back then it had not established itself as a technique to begin with. In that context the court held that since the polygraph test does not cater to the general acceptance

Downloaded by moin khan (moinamb99@gmail.com)

test (this from where the term 'general acceptance' comes from, that the scientific method should be generally accepted as reliable). And since the polygraph did not have any consensus within the scientific community with regards to its reliability, therefore, any evidence based on the polygraph will be inadmissible in a court of law. In the case the polygraphic evidence was presented in the court of law as an '**exculpatory evidence'**- evidence which has the potential to lead to an exoneration of the defendant and is in the favor of the defendant and proves the defendant as not guilty.

Eventually after this case we see a trend whether polygraph was presented to the court by the defendant or the prosecutor. Irrespective of that there was a standard per se exclusion of the polygraphic evidence which is seen for a very long time for almost the 50-60 years approximately, post the Frye verdict, which meant that evidence based on polygraph would not be admitted in a court of law. But what followed was- a lot of debate around evidence based on polygraph specifically the reliability and validity of the evidence within the psychological as well as the legal circles and therefore there was a slight alteration in the legal stand with respect to the polygraphic evidence which also was highlighted in *US V. GIBSON 1987 case.*

In this case the stand that the court took is usually known as the **'RELEVANCY APPROACH**.' The merit of this approach was that it treated all kinds of scientific methods whether they were new methods or were old and established methods, at par with each other. In this context, even though polygraphy was, for instance, was not as well established as psychometrics or psychological testing yet it was treated at par because there was some evidence which did show that polygraph had its merits and has some potential to detect deception and therefore it was a scientific method within the scientific community. The relevancy approach essentially said that if a scientific method is relevant to the case at hand and is reliable, it will be accepted as valid evidence. The reliability of evidence is important but the reliability does not need to be established within the scientific community. The court noted in the case that the Fry test- though the issue it is raising is extremely valid issue (reliability) but the frye test is extremely restrictive and extremely conservative in its approach. The court shifted the approach to the relevancy approach rather than the general acceptance test which had in turn led to the per se exclusion of the polygraphy technique.

After that, in the 1990s there were a series of cases, specifically 3 most important cases (one single case alone is not important but all are and the standard which was highlighted by all of the 3 cases came to be known as the 'DAUBERT STANDARD')-

- ***DAUBERT V. MERRELL DOW PHARMACEUTICALS (1995) (The first in the trilogy)***
- ***GENERAL ELECTRICS V JOINER (1997)***
- ***KUMHO V. CARMICHAEL (1999)***

All the 3 cases added to the Daubert standard and all of that put together came to be known as the Daubert Standard. And is something that is used in the context of all scientific evidence and all expert testimony rather than only the polygraphic test. In the standard, the court appointed the judge/jury as the gatekeeper to ensure that the scientific

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

evidence that is admitted in the court of law is reliable, grounded in techniques which are reliable and is relevant on a case by case basis and also gatekeeper to ensure that the expert testimony given by an individual was grounded in scientific knowledge which in turn was grounded in scientific methodology. In the Daubert cases it is seen that the courts then rejected all other standards of expert testimony or scientific evidence and the focus of these cases is that there can be no one standard which can be applied to all expert testimony and all scientific evidence but it has to be decided on the case by case basis and the judge has to be the ultimate gatekeeper.

Daubert standard was greeted with a lot of appreciation within the scientific community because it was a relatively flexible and open standard which kind of accepted a vast amount of scientific evidence within the legal set up as well. Currently as well, the Daubert standard continues to influence decisions with regards to the admissibility of scientific evidence. But specifically, with respect to polygraph test the legal community still has its reservations with regards to reliability of the evidence and also admissibility of expert testimony based on the polygraphic test.

Not long after the Daubert Standard, in ***US V. SHEPHARD (1998)*** which also was a very important verdict with regards to the admissibility and turned the table for the polygraph test, resulting in the rejection of the court with respect to admissibility of evidence based on the polygraphic test. The court in the case held that nothing in the Daubert standard foreclosed the per se exclusion of exculpatory evidence which is based on a technique like polygraph. And also ruled that the exclusion of the polygraph (esp. when presented as exculpatory evidence) does not account to the violation of the right of the defendant to a fair trial because the core issue that was highlighted was the fact that the reliability of the polygraphic test was not established within the scientific field or the psychological community and therefore a right out exclusion based on polygraph, even if its exculpatory evidence, does not qualify to be a violation of the right of the defendant to a fair trial. The shepherd verdict is going back to the frye test and highlighting that as elements of the reliability of scientific evidence to be established within the relevant field. Today in most cases the courts are fairly resistant towards admitting expert testimony which is based on the polygraph and polygraph test is still very contended.

Despite all the reliability issues, resistance which the legal circles have shown with respect to the polygraph test- there are also strong arguments both within the legal circles and psychological circles with respect to the strength and the value of the polygraphic test.

The 1st argument in favor of admissibility is the fact that over a period of time the sophistication of polygraph technique has evolved and therefore today after each passing case the accuracy of the polygraph technique has increased and therefore right oultly rejecting the polygraphic technique is not the solution. It is important to at least admit it in the court of law and have a debate around it which will also lead to an analysis of the drawbacks of the technique and further build upon it. An increase in the accuracy can be evaluated as a continuous process.

Also there are theorists who argue that even though the reliability of the polygraphic test might be in question yet there is merit in at least admitting polygraphic evidence and submitting the evidence to the adversarial process within the court of law and subjecting it to the adversarial

Downloaded by moin khan (moinamb99@gmail.com)

process to the entire process of legal debate and argumentation wherein the evidence per se can be evaluated just like any other evidence. So only because an evidence is based on the polygraphic technique should not be ground enough to reject the technique and at the same time should not have an overpowering influence on the court but should be treated just like any other evidence, should be subject to legal debate within the courtroom and should be subject to the adversarial process and there is no drawback in doing that. In this light again the polygraph should not be per se excluded.

Also if a lot of western cases are evaluated it would be seen that in a lot of these cases, polygraphic evidence has been entered into the court of law stipulation which means that both the defendants and the prosecutors come to an agreement with respect to whether the polygraphic evidence should be admitted in the court of law and they agree that the evidence can be entered into a court and in turn they can have their own terms with the respect to the admission. So if for instance they might agree that if the defendant passes the polygraphic test then the prosecution will drop the chances and if the defendant fails then the prosecution can take it ahead as an important piece of evidence.

VOICE DETECTION

Another aided technique. Also sometimes called **'Voice Stress Analysis.'** This technique is essentially grounded in the fact that the voice quality of every individual is different. The voice comprises of several vibrations and the pattern of these vibrations in each individual is different and that is because of the structural aspect of our muscles, vocal cord, the vocal cavity, the muscles attached to the vocal cord. It varies from person to person and therefore the very physical structural apparatus is different in different people and therefore the voice of different individual is different in terms of vibrations that are produced.

Also, not only structurally but also functionally the voice apparatus of people are different which means that I flex my muscles while I am talking is different from the way you would flex your muscles while you are talking. And this in turn results in varied vibrations (voice related) which are produced by individuals. These vibrations (which constitutes the voice of the person) can be tracked in **voice prints.** Voice prints are nothing but oscillographic representations of the way somebody talks. And in turn these oscillographic representations are different for different people and thus can be used to track the uniqueness of the voice of an individual. Voice print is tracked using PSE- 'Psychological Stress Evaluator' in a stress condition and a stress evaluator because it is used tracking the voice modulations of the people when he is under stress. These voice prints essentially show that when an individual is stressed out, is anxious, guilt and fearful and also when a person is lying or trying to deceive then there are unique changes in the vibrations which are tracked by the oscillator. When the person is lying there are a larger number of very tiny vibrations which are registered on the voice print and these tiny vibrations are called **micro-tremors.**

The results are pretty clear which is the reason why the tool is used so much and most studies tell us that when a person is lying the frequency and the number of micro-tremors are more. But still we do not know why that happens. So there were a lot of initial explanations which said that

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

when a person is lying, these micro tremors which are induced in the laryngitis (larynx is the voice box and its small muscles are called the small laryngeal muscles) and there are vibrations which are induced in the small muscles of the larynx of the individual result in a corresponding change in the quality of voice resulting in greater number of tremors recorded.

But further studies dismissed this conclusion wherein they told that in the smaller muscles there are no tiny vibrations which take place at all and theory that came into the forefront was that there are large muscles which are supportive muscles. They are around the area of larynx and start vibrating in a way which result in registration of the micro tremors. The problem with this explanation was that research also tells that one needs very highly sophisticated equipment to actually be able to track these frequencies and micro tremors in the large muscles. Even a lot of sophisticated equipment present in the lab cannot really track micro tremors which take place in the large muscles. So the question then arose that if there are micro tremors happening the large muscles then how does an instrument as simple as the psychological stress evaluator tracking these micro tremors? The origin of micro tremors still remain a mystery-why they occur and what is the source! But what we do know today is that there are these micro tremors which do occur. And it is this lack of explanation of micro tremors which have led to an increased debate around the reliability and validity of micro tremors. But almost all professions whether in the psychological fraternity or the legal fraternity, agree to the validity or the utility of micro tremors or voice detection in assessing whether an individual trying to lie or deceive. As a result what has happened is that in very few cases so far voice detection has been used. Voice detection has been used in a lot of corporate houses. So, JP MORGAN CHASE (bank) uses voice stress analyzers to assess whether an individual is being genuine or client who comes in is a fraud or genuinely has resources to cater to the loan or not. Nonetheless in legal cases, in very few court cases such evidence has been presented. At least the utility of voice stress detection has been proven, despite the issue of reliability it has been entered as a valid evidence in most cases. However in most cases this evidence has largely been treated as collaborative evidence rather than an independent piece of evidence. Voice analysis supports the other evidence which has been presented in the court of law or it supports what an expert witness is saying. It is only then in these cases that it has been accepted in a court of law.

One recent case in this regard was-

STATE OF FLORIDA V. ZIMMERMAN (2013)

Zimmerman was accused of murder. It was a case where issues against racial profiling (that the boy was innocent and that only because he was black, Zimmerman actually suspected him of being up to something and in turn shot him) were also raised. Zimmerman saw a black boy in his neighborhood and he suspected the black boy of being up to something and started following him around. He also called the police. The voice which was analyzed here was the phone call which was made to 911. Called the police and there was some tussle which happened and he ended up shooting and killing the boy. Zimmerman in this case claimed self-defense and said that in the process actually the boy attacked him and in order to save himself he had to shoot the boy.

Downloaded by moin khan (moinamb99@gmail.com)

Eventually he was acquitted of all charges. One of the piece of evidence in the case was the calls that he had made to 911, those were analyzed and the voice print analysis went onto prove that he was actually in a crisis when he had called and he was telling the truth that there was a boy in the vicinity who was up to something. However they were supported with other evidence and that was just one piece of evidence and in turn becomes collaborative evidence within a larger set of evidences which actually went onto strengthen Zimmerman's case. So far there is large case acceptance.

13/09/2019

….Continuing techniques of detecting deception (2 techniques to follow and both are to do with brain mapping)

FMRI (Functional Magnetic Resonance Imaging)- It is nothing but a huge electro magnet, those are coils in which electrical and magnetic activity which is taking place and those coils send across through the body changing or altering impulses of magnetic fields in terms of its north-south alignment. The south alignment of magnetic field is altered very quickly and rapidly. The magnetic field which it creates is pretty weak in intensity and which is why it is not harmful for the body. Because of the change or alteration in the magnetic field, certain hydrogen ions in the cells of the body, they start vibrating and they send across radio waves. These radio waves then are mapped by the machine to generate 3D images of the brain. Initially the technique used was MRI which used to map a 2D image of the anatomical structure of the brain itself. But today we have a functional MRI rather than just an MRI and this functional MRI maps the metabolic activity of the brain parts. So the image that we get is the image of the activity of the brain parts and those are series of 3D images and if they are studied then we would be able to tell that when what part of the brain was activated and what part of the brain was relatively dormant. This information we get because the quality of the image like the color, intensity of the image will be affected by the metabolic activity of the particular brain part and which is why it is called the functional MRI because it is mapping the brain while it is in function.

This in a legal set up cab be utilized to map whether a person is lying or not or whether the person is telling the truth or not, essentially because the brain activity of liars is different from the brain activity of truth tellers and two very parts of the brain have been implied in the act of lying. Individuals when they are lying have a relatively more active **pre-frontal cortex or the frontal lobe** (a larger chunk of the pre frontal cortex) and the **parietal lobe.**

FRONTAL LOBE_ Is responsible for higher order cognition- creativity, complex thinking, decision making, problem solving, reasoning, analyzing, etc. Pre frontal cortex is also called the 'working brain' because it is when the body is in action, the major cognitive processing is taking place in the pre-frontal cortex and predominantly the frontal lobe.

PARIETAL LOBE- In this there is also a certain amount of reasoning and thinking which takes place and is responsible for some amount of reasoning and thinking but predominantly it is also responsible for behavioral control, behavioral governance and regulation. The development of the parietal lobe is responsible for the development of behavioral control through the adolescent period. In the early adolescence the parietal lope is relatively less developed which is why it is

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

said that even though an adolescent might be cognitively aware of the negative consequences of the act yet an adolescent has problem in restricting oneself from engaging in that act.

If we consider this neurological basis of lying wherein it is said that the person who is lying has a relatively more active frontal lobe and a parietal lobe. It fits with a quintessential picture of the act of lying, wherein we say if someone is lying, predominantly there is a thought, the person is suppressing that thought (that thought is the knowledge of the truth) and creating another thought which is the act of cognition/thinking/reasoning and after one comes up with that thought, the false thought has to be expressed either behaviorally or verbally. So once ability to control and regulate ones behavior becomes important. Working brain which is playing the role and the parietal lobe which is ensuring that the person is in a certain kind of behavior which is in concordance with the lie.

Research evidence which documents the accuracy of the use of functional MRI- there is a good mix of studies, all of them do point towards the utility and the accuracy of the MRI but specific number they give us varies. Range is between 75-76% to about 90%. From the legal perspective and specifically from the ethical and psycho legal in terms of ethics, this technique is largely contended. There are both sides of the debate. One side which strongly advocates the use of FMRI and the other side which doubts the utility of the technique.

One of the biggest **advantage**s- *objectivity* of the technique is very high. There is equipment which is highly standardized which is mapping the activity of the brain and clearly tells that whether the frontal and parietal lobe is active or not. No human judgment required. No space of much subjectivity.

Also, along with that it is a very *non-evasive* technique as compared to a lot other contended techniques which also largely are not used (using drugs to ensure that the person is speaking truth, though a medical technique). This too is a medical technique but does not invade the body of the individual.

In legal context, one of the strengths of the technique is that it ensures that there is *no coercion* which takes place. In order to ensure that an MRI gives an accurate picture, the person himself needs to be willing to undergo the process and the person has to be voluntarily willing to undergo. If he is coerced or forced into taking an MRI then the brain in itself would undergo certain changes, certain paths will be triggered and since the frontal lobe is the working brain then if a person is resisting a particular technique then the frontal lobe in itself will be highly triggered. Then it would mask the real difference between liars and truth tellers. This technique pre-supposes that the person is willing to undergo the procedure and the person is voluntarily doing it without the use of coercion. This removes the possibility of physical, psychological coercion.

One of the most basic **objections** is- doubts with regards to the validity of the technique (validity in the field of detecting deception in a legal setup) and these doubts come in the forefront because of the fact that this technique is relatively new in the field of investigative psychology and so far the horizon of data is very limited. Like- we do not know how the FMRIs of people of different ages is different or we do not know how the brain activity esp. in the context of

Downloaded by moin khan (moinamb99@gmail.com)

detecting deception, how the FMRI of different genders are likely to vary. People who are suffering from mental disorders- we do not know what the brain imaging of these people would look like in the context of detecting deception.

Data that we have in itself is very limited and therefore does not cover enough area to ensure the validity of the technique. In the psycho legal context, what impact does the setup itself has on the brain activity of the person? Is it possible that the high risk situation itself might be triggering some alterations in the brain activity of the person? If yes, then in what way does it then affect the brain images that an MRI actually generates? That also is a very important information which can be used while evaluating the validity of the FMRI technique. As research progresses the data is likely to come in but so far there is no data regarding all this.

Another debate against the technique is the potentially intrusive nature of the technique. Intrusion in terms of the privacy of the person. Violation of the privacy which is inherent in nature and privacy herein is implied in terms of cognitive privacy. There is an entire line of debate which is called the neuro-ethics. And it is advocated that the cognitive freedom of an individual is of paramount importance which means that cognition is something which is an internal activity and therefore something which is internal to the person is extremely private in nature and only the person has the right to know the internal activity. And thus contended that cognitive freedom is intruded.

A term parallel used to Brain Mapping or Brain Imaging is Mind Reading. Mind reading is nothing but studying the different patterns of brain activity and through these patterns determining what the person is thinking. Again the process of mind reading has been critiqued wherein the thoughts of the person are considered to be private, if the person wants to make those public he would speak it out. But as long as they are thoughts they are private. Then using technology to read mind is inherently is ethically problematic. MRIs have been considered a tool to read the minds of the people. So when we use MRIs to detect whether a person is lying or not, a lot of advocates of the use of MRIs also recognize this potential misuse of the MRI. Also highlight that the use of MRI should be restricted to one particular act of the person which is the act of lying and should be restricted to just studying whether the parietal and frontal lobe lit up when the person was talking about something or not rather than an extended mapping of the activity of the brain of the person resulting in mind reading and in turn resulting in an analysis of the cognitive activities and the thought patterns which the person was possibly having.

As of today, research suggests that the technique is highly objective and accurate. There are still issues with the validity of the technique in the field of investigative psychology as a tool to detect deception and there is a major debate on the issue of neuro ethics considering the technique as an intrusion in the cognitive freedom of the person.

BRAIN FINGERPRINTING

In the context of this technique there is a greater neuro-ethical debate. It is a relatively very new technique. When a witness watches a crime happening then there is the memory of the crime which is stored in the mind of the person. One way to gain access to that memory is Direct Recall (ask the witness to give a recall of what he witnessed). Is there any other way to access

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

that memory even if the person is unwilling to give a recall of the incident? **Lawrence Farwell** would say yes and that it is possible to access the memory of the person and Farwell is the person to introduce the technique of brain fingerprinting. He was a scientist studying the brain mechanism of a person and he realized that every time the person is exposed to something that he is familiar with then the brain pattern of the person changes in a certain way and specifically there is a particular brain wave which is emitted by the person. Farwell code named this particular brain wave as P300. The brain constantly emitting electro-magnetic waves and these waves can be mapped by using certain machines and a particular frequency of this electro-magnetic wave is what is emitted by an individual when the person comes across something familiar and this frequency was code named by Farwell as P300.

In this technique (brain mapping) Farwell said that we need to do nothing, we need to simply come up with certain pictures of any aspect of the crime scene which the offender will have knowledge of- pictures of crime scene, people who were there, objects at the crime scene, picture of the dead body- pictures with which the offender is likely to be familiar with and then simply showing these pictures to the offender and studying the brain wave patterns of the offenders and the specifically looking for this particular frequency which is called P300, is likely to give information with respect to whether the person recognizes the information and if the person recognizes then by inference the person is likely to be the offender. Electrodes are fitted to the skull of the person and then the pictures are flashed.

One of the most basic elements on which the accuracy and the effectiveness relies on is coming up with few pictures which only the offender is likely to be familiar with. If generic pictures are collected with which a lot of people are familiar with then even this person who might not be an offender might be familiar with and might emit P300. P300 is emitted for a very small time, emitted for roughly 300-800 milliseconds.

This technique per se has not been used in a lot of cases barring one in which it was also used as very secondary evidence-

STATE V. HARRINGTON (2000)

In this case, the person was a murder convict and convict had already served 22 years in prison. So, the attorney of person moved the court to reopen the case in light of some new evidence that has come to the forefront and had come to the forefront because of the use of brain fingerprinting. Herein the defendant did not show P300 brain wave pattern in response to certain pictures from the crime scene. But he did show P300 wave pattern in response to pictures which were associated with his alibi. He had given an alibi of being away at some party and when he was shown pictures of that he showed P300 wave pattern but when he was shown pictures from the crime scene he did not show the particular wave pattern and thus the attorney argued that the case shall be re-evaluated in light of the new evidence.

The case is important because it is the first and the only case where such evidence has been presented. This evidence was considered to be admissible in the court of law. Also there was a mention of the Daubert Standard and held that this technique is being used in the scientific community and is thus a valid technique and should be admitted as a valid technique. The

Downloaded by moin khan (moinamb99@gmail.com)

technique was admitted but did not concede to the motion to reopen the case wherein it simply stated that even though there is a new piece of evidence that has come to light but it is unlikely to change the final verdict of the case because there was enough evidence to support the fact that he had actually committed the crime. Therefore the case wasn't reopened. But what is of importance is that this evidence was admitted.

For now, evidence in the field of psychology and brain sciences suggest that it is a pretty valid technique. It is an extremely intrusive technique. So even though if the validity of the technique is established there are likely to be reservations within the psycho-legal circles to the use of the technique and admissibility of the technique because potentially this technique has the ability to draw the memory of the person in indirect manner but intrude upon the memory of the person and draw the memory even without the person recalling that memory.

Also, it does not pre suppose consent. So, even if the person is unwilling and does not consent to the technique, simply exposing that person to certain pictures from the crime scene is likely to result in the emission of P300 and is likely to give an indication of whether the person was there or not. Therefore a high element of psychological coercion. Even if it is established as a valid technique in the psycho-legal circles, it is likely to raise ethical debates from a neuro-psychological perspective.

18/09/2019

OFFENDER IDENTIFICATION

It is the process where the witness and also the victim can be used to identify the offender (most researches done in the context of witnesses identifying the offender). 3 important ways in which offender identification can take place and also along with that is mentioned their inaccuracies-

1. **VERBAL DESCRIPTION OF THE OFFENDER HIMSELF BY THE WITNESS-** This leads to the generation of facial composites on the basis of verbal description given by the witness about the offender. Facial composites are the sketches of the offender that an artist might come up with on the basis of the description given by the witness.

   When an individual is describing an offender then fundamentally it is considered to be psychologically a very unnatural process to describe the offender on a feature based processing. The most initial research in the area tells that the brain are used for visual processing of information and the brain area used for verbal expression of information are 2 very different areas. The brain area used in verbal expression of information- '**brocas area'.** Brocas area is known to be located in the left hemisphere. Initial research said that it is located on the left side but now there is slight modification with regards to this information and that it is located in the dominant hemisphere of the individual. By contrast the visual area for visual stimulation and perception is located in the right hemisphere. There is a clear divide in terms of broad brain areas involved wherein when an individual is perceiving visual information it is parts in the right hemisphere that are

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

active but when an individual is giving verbal descriptions of this information then brocas area in the left hemisphere which is active. There is thus a high susceptibility of inaccuracy.

The second aspect is the manner in which individuals process visual information with respect to recognition of facial structure of the individual. A difference between a **top down perception** which is used while we perceive the face of individuals and **the bottom up perceptional process** which is used when we are recalling information about an individual.

*Feature Based perception (bottom up perception) - Where while you are perceiving information, you are using simpler percepts, the component parts of the total complex object to get a perception of the whole object or meaningful perception of what the whole object is.

When exposed for the first time to an object then you are more likely to use the bottom up process of perception or feature based process of perception where the simple features are perceived and thus a get a meaningful understanding of the object.

*Whole Based Perception (top down perception) - When once you develop familiarity with the object and then by simply looking at it you would be able to derive the basic features. Just look at the object as a whole and then derive the simple features.

So when we perceive faces, we use the whole based perception or the top down process. The mistake in sometimes recognizing people is because we use the whole based perception. We look at the face in toto and feel that this face is familiar and therefore this person is a particular person that we are aware of but at the same time we do not get into the details of what does the nose or the eyes of the person looks like. When you approach the person and begin the conversation and have a closer look then you realize that the specific features of the person are different from the initial appraisal you had basis the whole based perception.

Contrast this, when witness is describing the face of a person to a sketcher then the individual is relying on feature based processing (eyes, nose, body structure and all such related details).

So, the basic perceptual processes involved at the time of encoding of face structure of an individual are very different from the very nature of perceptual processes which are utilized by an individual at the time of generating that facial composite or at the time of giving the description of what a person looked like. And in turn the facial composite that is generated for the first time is highly inaccurate. What can be done about it is to perhaps make the generation of facial composite a more interactive process going back and forth between the sketcher and the witness. But this then becomes a cumbersome task because a sketcher sketches and shows it to the person then the person uses whole based processes and then realizes that this is not what the person looked like and then starts making modification, the sketcher then has to start from the scratch. And this might happen again. To tackle this to a certain extent, in the western countries what they have today is that they use artificial intelligence to sketch that. It is a less time consuming process but there is still a lot of back and forth that happens.

Downloaded by moin khan (moinamb99@gmail.com)

2. **USE OF PHOTOSPREADS-** When a number of photographs of the potential offender are shown to the witness and the witness is asked to locate which of these individuals is possibly the offender. These photographs of the offender might be selected on the basis of the verbal descriptions which are given by the witness, also on the basis of previously existing information with regards to who could have possibly committed the crime. Research tells that the identification of any face is a very individual process and highly ridden with individual differences. And these individual differences creep in in the context of personal values and motives of the person concerned himself. Faces which the individual finds more attractive are easier to remember as compared to faces which are usually seen as very normal average faces. Certain kinds of faces are easier to remember and when we start to describe what kinds of faces are easier to remember there is a lack of universal definition in that regard because a particular kind of face might be easier to remember for one particular person and might not be easier for certain other kinds of people. For instance- attraction. Considering, that if the witness finds the face of offender attractive, then those kinds of faces are easier to remember and less thus less prone to accuracy as compared to face with average attraction to the witness.
   Also for instance, faces which have some distinctive features, like- a very prominent nose or a very distinctive rare face structure. These faces would be easier to recall as compared to faces which are an average version in a particular culture.
   Also a particular kind of bias known as the- 'Own Race Bias.' This is usually seen in multi-ethical culture where a culture like the US, people of multiple ethnicity stay there. This bias is a process which simply says that individuals find it easier to distinguish between facial features of individual belonging to their own culture as compared to facial features belonging to other races or culture. We are able to recognize facial features differences of people that we constantly interact with or we are familiar with but we are unable to recognize individual differences in the facial make up of people who do not belong to our culture. This bias is known to have led to a lot of false alarms in multi-ethnical cultures. In terms of investigative psychology, it is not a mono-ethnic phenomenon. In a culture like India if there is a photospread and one has to pick up people then it is highly likely that there will be people belonging to your own culture at least the facial features of the people that you are familiar with. But in a multi-ethnic culture like the US if an individual of a particular culture or ethnicity commits a crime, then another individual belonging to that ethnicity is likely to be identified as the offender even though if that particular person has not committed that crime. Because the level of similarity is a lot and the person has not developed enough familiarity to be able to differentiate between different individuals of that community and the illusion of homogeneity raises false alarms. Own raise bias is one type of inaccuracy. 'Differential Experience Hypothesis'- It is not just the frequency of experience but the frequency of meaningful experience which determines our sensitivity to facial features of an individual belonging to some other ethnicity.
   Another type of inaccuracy is the notion of **'Unconscious Transference'.** It is simply a process of interference of memory wherein one individual to which the witness had an exposure to at a prior event is misidentified as the offender in an event which took place

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

at a later stage. This typically is a case of 'proactive interference' (interference are of 2 kinds- retroactive and proactive). In this case there can be retroactive interference too but in most cases proactive interference has been seen. A memory of an individual which has been created at an earlier event is confused with the memory of the individual being present at the scene of crime. For instance- I see an individual in a potential stressful situation. There is tussle happening between 2 people at the restaurant and I witness the tussle at one point in life, following it a few days later- I am at a restaurant again and there is a robbery and I witness the robbery and have a good look at the thief. Now is it possible, as a witness when I am asked to give a recognition the offender, instead of recognizing the offender I actually misidentify that individual that I had seen in the first tussle that I witnessed in the same restaurant? This is Possible. This has been witnessed in a lot of cases of offender identification specifically more in the cases of photospreads rather than line ups because photospreads present very inanimate photograph of an individual rather than the actual animate individual.

This then becomes a very quintessential example of 'context dependent memory'. The question is that why is it that this individual who was involved in the previous tussle in this restaurant was misidentified as the offender in the case of robbery which happened at the same restaurant? This has to do with context dependent cues (Encoding specifity of 2 kinds- state dependent and context dependent) and because at a previous point there was a tussle which happened, it was a stressful situation created some negative emotions and stress in the individual who was sitting and watching that tussle and there was this restaurant which had particular cues. At a later stage when the robbery takes place in the same or similar kind of restaurant, can be a different restaurant too but the case of unconscious transference is going to be even stronger if it is the similar setup as far as the physical environment is concerned. The context dependent cues become active leading to the misidentification of the individual involved in the tussle as the offender who committed the offence in a similar set up.

Another explanatory factor used to describe the phenomenon is known as **'Source Monitoring.'** It is simply the ideology which suggests that while we are recalling or retrieving information from our memory, we are actively making inferences about the source of that information. So it suggests that information is not stored along with the source of that information while we are recalling the particular memory by actively making inferences about the source of that memory. So you see the face or photospread and say that I have seen this man somewhere (the customer was involved in the tussle for instance) but I do not know exactly where- do not remember the source. Therefore you rely on context dependent cues to come with the identification of the person. So you tell yourself that I have seen this man somewhere but do not remember where, the source is missing but it was a stressful situation (similarity in the context) and therefore this person must be the offender and that is how the person is misidentified as the offender.

3. **LINE UPS-** Line ups are similar to the use of photospreads, the only difference being that in line ups actual individuals are presented in front of the witness and the is asked to

Downloaded by moin khan (moinamb99@gmail.com)

pick one individual as the possible offender. Also in terms of psychological processes involved it is overlapping for both photospreads and line ups.
The principle underlying facial composites and line ups are overlapping. What is discussed in photospreads also applies to line ups. Possible sources of errors are multiple, few important ones are-
First of all, a line up is extremely susceptible to suggestibility. Observations tell that even a simple neutral question or even a very vague statement by the investigator can actually be taken as a suggestion by the witness. Question like- 'Does the second person resemble the offender in terms of height?' This can be taken as a suggestion that it is perhaps the second individual in the lineup who is the offender leading to misidentification simply based on the suggestion.
Another potential source of error is- **'Conformation Bias.'** Research tells that once an identification (identified someone as an offender) has taken place then there is very high tendency in the individual to stick to the identification even if there is contradictory evidence which is available. In turn confabulation also takes place, meaning that individual also comes up with some explanation in support of his identification. Which is why one of the principle of having an effective line up is the fact that the witness is told that he is under no pressure to identify someone, he should take some time, think, reason out, analyze and then identify. Also that the person needs to be told that it is quite possible that the individual is not in the lineup. This is simply to avoid the pressure of identification. Also for an effective line up- the 'functional size of the lineup' ideally needs to be the same as the 'nominal size of the line up.'
-Nominal Size- The actual size of the lineup. If there are 5 people in the lineup then the nominal size would be 5 which is the entire size of the lineup.
-Functional Size- The number of individuals who closely resemble the description of the offender given by the witness.
So if the witness says that the offender had a beard, then if out of the 5 people only 3 have a beard then functional size is 3. It is essentially the functional size which determines the accuracy or effectiveness of lineup because typically, those 2 other people are of no use.
In an ideal situation the functional size of the lineup should be equal to the nominal size of lineup meaning that ideally all individuals in the lineup should match the description of the witness then all the individuals (functional size of lineup) will be equal to the nominal size.

19/09/2019

So as far as the legal stand with respect to identification procedures and specifically line ups are considered and specifically the aspect that there is an argument that line ups can be extremely suggestive in nature. Courts have also actively taken cognizance of the fact that line ups can be extremely suggestive in nature but the verdict in ***MANSON V. BRATHWAITE (1977)*** at length commented on the validity and reliability of line ups.

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)

The courts said that line ups can be extremely suggestive in nature and that raises serious issue around the reliability and validity of evidence obtained from identification of the procedure. The court identified that this cannot be a reason enough to entirely doubt the reliability of line ups and if a line up is conducted in a reliable fashion then that it is reason enough to admit evidence based on line up and evaluate those evidence as within the context of all other evidence presented in the court. What would determine whether a line up has been administered in a reliable manner or not. The court identified 5 specific conditions which needed to be ensured to ascertain the reliability of the line up. These 5 particular conditions were based on the behavior of the witness in the particular case.

1. It should be ascertained that the witness has had the opportunity to view the crime.
2. Along with that the witness should have had the opportunity to attend to the crime at length.
3. The witness should have given consistent account of the crime itself over multiple interviews and also of the perpetrator.
4. The witness should be confident or should show certain level of certainty with respect to his account that it is accurate. There is contending evidence within the field of psychology as far as the confidence level and the level of accuracy is concerned because a lot of psychological studies tell us that the level of confidence of an individual does not find high co-relation with the accuracy rates.
5. Less amount of time must have elapsed between the occurrence of the crime and the identification procedure or lineup which is administered. When a large amount of time lapses after memory has been formed, there is greater scope of reconstructive processes to take place and thus greater opportunity for cognitive processes to alter the memory.

Also in the field of psychology APA has a sub society of psychology which is called the American Psychology Law Society. And this society in 2001 gave a list of 4 features or characteristics which again should be ensured in order to ascertain that a lineup is generating evidence which are highly accurate and therefore limiting the scope of inaccuracy.

1. The most important factor in the list to ensure that a lineup is a double blind procedure. It means that the administrator of the lineup should not be aware of who the possible perpetrator is. Functionally implying that the person who constructs the lineup that person would be different from the person who actually administers the lineup when it comes to calling the victim and view these individuals and pick the possible perpetrator. This is one level of blindness (blindness because the administrator is not aware of it). The second level of blindness is that the witness who is viewing the lineup is also aware that the administrator does not know anything about the lineup. Now this double blind procedure in effect is important, in order to counter the suggestibility of the line up. That since the administrator does not know of who the possible perpetrator is then there is no chance that the administrator would be able to suggest anything directly or indirectly to the witness. Along with that what is important is that the witness also knows that the administrator is unware of the line up so that the witness does not take any suggestions which were not even intended to begin with.

Downloaded by moin khan (moinamb99@gmail.com)

2. Ensuring that the functional size is indeed equal to the nominal size. Research in psychology says that having a greater nominal size has little or no value so in order for the line up to be effective and ensure a greater opportunity to the witness to explore greater number of alternatives then the functional size should typically be as large as possible and should ideally be equal to the nominal size.
3. The witness should definitely be informed that it is possible that the perpetrator is not in the line up. Even if the perpetrator is in the line up, as a standard rule the individual should be informed that it is possible that the perpetrator is not in the line up and therefore the individual is not under any compulsion to make an identification to begin with. This happens to counter the conformation bias.
4. Taking a statement from the witness with respect to the certainty with which he has made an identification or simply taking a statement with respect to the confidence level of the witness with respect to identification before he has given feedback or before he is allowed to interact with any other individual outside the context of identification set up. Confidence level is not used as a co-relate of accuracy (that if there is greater level of confidence then it implies higher accuracy).

This document is available free of charge on studocu

Downloaded by moin khan (moinamb99@gmail.com)